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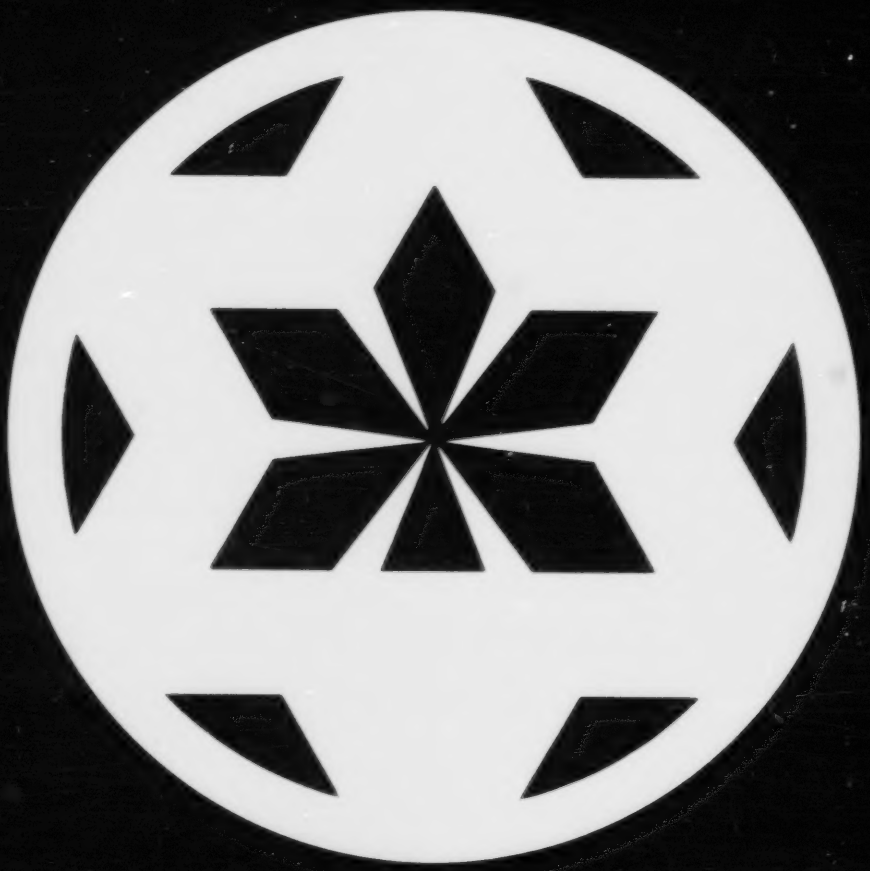

Current research in the Geological Sciences in Canada May 1987 - April 1988

Travaux en cours dans le domaine des sciences géologiques au Canada mai 1987 à avril 1988

Compiled by
THOMAS E. BOLTON

Préparé par
THOMAS E. BOLTON

Canada

1988

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INTRODUCTION

The present publication recording research in progress in Canada from May 1987 to April 1988 is the result of a survey conducted between January, 1988 and March, 1988.

The research projects listed in this compilation are being undertaken mainly within federal and provincial departments, and universities. A relatively complete overview of scientific research activities within Canada in the geological and allied sciences is provided for the survey period.

Using the data supplied for this compilation by the respondees, some indication as to the lines of research receiving the greatest and least attention can be formulated. At least 380 research projects have not been previously reported. The greatest increase during the 1987-88 period was in the fields of Mineral/Energy Geoscience (51), Structural Geology (37) and Geophysics (36). Research projects undertaken as graduate thesis in the universities are so specified wherever possible.

Additional details on research in the earth and related sciences underway in Canada during 1987 can be obtained through the annual reports prepared by individual university departments, research councils, and museums. Comprehensive reports on geophysical research and development, including volcanology and oceanography related research, are contained within the Canadian Geophysical Bulletin published by the Department of Energy, Mines and Resources. Summaries of progress and short research reports related to hydrology/water-related environmental research and glaciology are provided annually by the Water Resources Branch of the Department of Environment Canada and the Associate Committee on Hydrology, National Research Council. Quaternary research in Québec is reviewed annually in the "Bulletin d'information de l'Association québecoise pour l'étude de Quaternaire".

Again this year a listing is included of the 1987 awards provided for geological research within the Research Agreements program of the Department of Energy, Mines and Resources Canada. The Natural Sciences and Engineering Research Council Canada also provided a computer print-out of the operating grants actually awarded in 1987. The 1987 Ontario Research Grants, British Columbia Geological Survey Geoscience 1987-88 Research Grants and Polar Continental Shelf Project field support to non- governmental activities are also listed.

Use of the compilation

The projects are grouped under main headings that cover the majority of disciplines within the geological and allied sciences. These groupings are unchanged from last years compilation (Geological Survey of Canada, Paper 87-5, 1987).

A complete list of organizations contributing to the present survey is included. Acknowledgment is made in particular to those who assembled and forwarded the data on research projects underway in the organizations under their direction. As a convenience, an alphabetically arranged index lists each investigator and the reference number(s) of the project(s).

INTRODUCTION

La présente publication, qui fait état de la recherche réalisée au Canada de mai 1987 à avril 1988, est le fruit d'une enquête effectuée entre Janvier 1988 et mars 1988.

Les projets de recherche enumérés sont exécutés surtout par des ministères fédéraux et provinciaux, et par des universités. Un aperçu assez complet de l'activité de recherche scientifique au Canada pour la periode visée dans le domaine de la géologie et des sciences connexes est cependant fourni.

À partir des renseignements donnés par les participants à l'enquête, il est possible de voir quels genres de recherche retiennent le plus et le moins l'attention. Au moins 380 projets nous ont été signalés pour la première fois. Les domaines où la recherche s'est le plus accrue durant l'année 1987-1988 sont les sciences de la Terre- Énergie/Minéraux (51), la Géologie Structurale (37) et la Géophysique (36). Les projets de recherche de 2^{e} cycle, dans les universités, sont également précisés, dans la mesure du possible.

On peut se procurer de plus amples détails sur la recherche réalisée en 1987 au Canada dans le domaine des sciences de la Terre et des sciences connexes en consultant les rapports annuels mis au point par les différents départements l'universités, conseils de recherche et musées. Le volume du Canadian Geophysical Bulletin, publié par le ministère de l'Énergie, des Mines et des Ressources, comprend des rapports complets sur les travaux de recherche et les dernières réalisations en géophysique, y compris la recherche connexe en volcanologie et en océanographie. Des résumés des progrès réalisés et de brefs rapports ayant trait à la glaciologie et à la recherche environnementale liée à l'hydrologie sont publiés annueullement par la Direction des ressources en eau d'Environnement Canada et par le Comité associé de l'hydrologie, du Conseil national de recherches du Canada. La recherche sur le Quaternaire au Québec est signalée anneullement dans le "Bulletin d'information de l'Association québecoise pour l'étude du Quaternaire".

Nous incluons à nouveau cette année une liste des prix décernés en 1987 pour la recherche géologique dans le cadre du programme d'accords de recherches du ministère de l'Énergie, des Mines et des Ressources du Canada. Le Consiel de recherches en sciences naturelles et en génie du Canada a également fourni un imprimé d'ordinateur détaillant les subventions aux travaux réellement accordées en 1987. On a signalé également dans ce rapport les subventions de recherche de la Commission Géologique de l'Ontario (Ontario Research Grants), de la Commission géologique de la Colombie-Britannique, et l'aide de l'Étude du plateau continental polaire en faveur d'activités non gouvernementales pour 1987.

Présentation

Les projets sont groupés sous des titres généraux s'appliquant à la majorite des disciplines que comprennent la géologie et les sciences connexes. Ces catégories sont les mêmes que l'année dernière (Étude 87-5, Commission géologique du Canada, 1987).

Une liste complète des organismes qui ont contribué à l'enquête a été dressée. Nous tenons à remercier particulièrement les personnes qui ont recueilli et envoyé les données concernant les projets de recherche en cours dans les organismes dont elles sont responsables. Pour vous faciliter la consultation, un répertoire alphabétique donne les noms de tous les enquêteurs et le(s) numero(s) de reférence de son(ses) projets(s).

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

1
ANDERSON, R.G., Geol. Surv. Can:
Geology of the Iskut River – Telegraph Creek area, BritishColumbia, 1984-.

2
BLOODGOOD, M.A., PANTELEYEV, A, British Columbia Ministry Energy, Mines, Petrol. Res.:
Quesnel gold belt (NTS 93A): Structural and stratigraphic controls on gold mineralization within Triassic metasediments within the Quesnel Terrane, central British Columbia, 1986-; M.Sc. thesis (Bloodgood).
See:
Structural transitions within the Quesnel Terrane, Eureka Peak area, central British Columbia (NTS 93A/7); Geol. Soc. Amer., Abstracts with Programs, Cordilleran Section Meeting, 1987.

Geology of the Quesnel Terrane within the Spanish Lake area, central British Columbia (NTS 93A/11); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 139-145, 1988.

3
BROWN, D.A., LOGAN, J.M., British Columbia Ministry Energy, Mines, Petrol. Res:
KOKANEE PROJECT, British Columbia, 1987-88.
See:
Geology and mineral evaluation of Kokanee Glacier Provincial Park, southeastern British Columbia (82 F/11, 14); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 31-48, 1988

Galena lead isotope characteristics of mineralization in Kokanee Glacier Provincial Park, southeastern British Columbia (82 F/11, 14); ibid., p. 535-541, 1988.

Included is 1:50 000 geological mapping of the Middle Jurassic Nelson batholith and tabular pendants of pelitic and psammitic metasedimentary rocks. Mineral occurrences were evaluated and classified.

4
CHURCH, B.N., GABA, R.G., British Columbia Ministry Energy, Mines, Petrol. Res.:
Geology of the Bridge River mining camp, British Columbia, 1987-.
In 1987 approximately 500 sq. km of mapping in the Bralorne and Noaxe sheets, tracing the Jurassic/Triassic unconformity, will be completed.

5
DODDS, C.J., Geol. Surv. Can.:
Geology of Skagway (104 M) map-area, British Columbia, 1982-.
See:
Geological mapping in Tatshenshini River map area, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 65-72, 1988.

6
FERRI, F., MELVILLE, D., British Columbia Ministry Energy, Mines, Petrol. Res.:
Manson Creek mapping project, British Columbia, 1987-90.
See:
Manson Creek mapping project (93 N/09); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 169-180, 1988.

Mapping project along Intermontane/Omineca Belt boundary-detail structure, stratigraphy, geochronology, mineral deposits. Underlain by Slide Mtn. Gp. (Intermontane) and Ingenika Gp/Wolverine Complex (Omineca). 1st year of a planned 4 year program.

7
FRIEDMAN, R.M., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
Geology and geochronometry of the Tatla Lake Metamorphic Complex: An Eocene metamorphic core complex on the southwestern edge of the Intermontane Belt, British Columbia; Ph.D. thesis (Friedman).
Bedrock mapping, structural analysis and U-Pb/K-Ar geochronometry of rocks in the Tatla Lake area of SW interior BC have documented Cretaceous through Eocene deformation/metamorphism. A several km thick Eocene low-angle normal, ductile to ductile-brittle shear zone has brought mid-crustal IMB rocks to upper-crustal positions.

8
GREIG, C.J., ARMSTRONG, R.L., MONGER, J.W.H., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Geology and geochronometry of the Coquihalla area, southwestern British Columbia, 1986-88; M.Sc. thesis (Greig).
See:
Geology and geochronometry of the Eagle plutonic complex, Hope map area, southwestern British Columbia; Geol. Surv. Can., Paper 88-1E, p. 17-183, 1988.

Age-dating completed; petrography, geochem, structure compilations to be completed and written up.

9
KILBY, W., British Columbia Ministry Energy, Mines, Petrol. Res.:
Kinuseo area coal deposits.
A 1:50 000 scale compilation map of portions of 931/14 and 931/15 and computer files of outcrop and borehole data will be produced.

10
MacINTYRE, D.G., DESJARDINS, P., British Columbia Ministry Energy, Mines, Petrol. Res.:
Babine project, British Columbia, 1984-89.
See:
Babine Project; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 181-193, 1988.

Two map sheets, 93L/10 and 93L/15 have been mapped at 1:50 000 scale. Rocks in this part of the Babine Range range from early Jurassic to Tertiary in age.

11
MASSEY, N.W.D., FRIDAY, S.J., British Columbia Ministry Energy, Mines, Petrol. Res.:
Sicker project, British Columbia, 1986-90.
See:
Geology of the Cowichan Lake ara, Vancouver Island (92C/16); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1987-1, p. 223-229, 1987.

The geology of the Chemainus River-Duncan area, Vancouver Island (92C/16, 92B/13); ibid., Paper 1988-1, p. 89-91, 1988.

Ore field season remains (1988) in this project, to be followed by write-up in 1989.

12
McMECHAN, M.E., Geol. Surv. Can.:
Detailed geological study of selected areas within the Foothills and Rocky Mountain Belts between Peace River and Smoky River with emphasis on structure, British Columbia and Alberta, 1981-.

13
MIHALYNUK, M., ROUSE, G.E., JONATHAN, N., CURRIE, L., British Columbia Ministry Energy, Mines, Petrol. Res.:
Tagish (Atlin) project: Promotion of British Columbia mineral potential, 1987-.
See:
Preliminary geology of the Tutshi Lake area, northwestern British Columbia (104M/15); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 217-231, 1988.

1:50 000 mapping and stream sediment sampling program in 1987 furthered our knowledge of the stratigraphy and structural and metamorphic styles in 104M/15. Of many conclusions two are outstanding: (1) rock of the Whitehorse Trough (uλ→) appear to rest unconformably atop metamorphic rocks of the Nisling Terrane and(?) Atline/Cache Ck. terrane(?). (2) many lithologies within 104M/15 have anomalous background Au-particularly near the Llewellyn fault zone. In 1988 work is planned to continue SE along the belt of rocks adjacent the Llewellyn Fault zone.

14
NELSON, J.A., BRADFORD, J., HARMS, T., British Columbia Ministry Energy, Mines Petrol. Res:
Midway-Cassiar project, British Columbia, 1986-90.
See:
Geology and patterns of mineralisation, Blue Dome map area, Cassiar District (104P/12); British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 233-244, 1988.

Geological transect across the Sylvester allochthon north of the Blue River, northern British Columbia (104P/12); ibid., p. 245-248, 1988.

Silver-lead-zinc manto deposit, northern British Columbia (104O/16); ibid., Paper 1988-1, p. 353-362, 1988.

15
PANTELEYEV, A., BAILEY, D.G., British Columbia Ministry Energy, Mines, Petrol. Res.:
Geology of Quesnel mineral belt (NTS 93A), British Columbia, 1986-88.
See:
Geology of the central Quesnel Belt; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 147-153, 1988.

Quesnel mineral belt – the central volcanic axis between Horsefly and Quesnel lakes; ibid., p. 131-137, 1988.

Mapping of the central volcanic axis of the Quesnel terrane is defining environments of gold and copper-gold mineralization in the Triassic/Jurassic island arc rocks and their coeval, alkalic intrusive centres.

16
PRICE, R.A., Geol. Surv. Can.:
Operation Bow-Athabasca, British Columbia and Alberta, 1965-.

17
RAY, G.E., DAWSON, G.L., ETTLINGER, A.D., British Columbia Ministry Energy, Mines, Petrol. Res.:
Hedley gold skarns, 1985-88. Gold-enriched skarns of British Columbia, 1987-90.
See:
Geology, geochemistry and metallogenic zoning in the Hedley gold skarn camp; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, 1988.

Gold enriched skarn deposits of British Columbia; ibid., 1988.

Mapping and studying British Columbia known gold skarn camps in order to aid exploration for new deposits.

18
STRUIK, L.C., Geol. Surv. Can.:
Geology of McLeod Lake (93J) and Pine Pass (93O) southwest map area, British Columbia, 1987-.
See:
Preliminary report on the geology of McLeod Lake area, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 39-42, 1988.

19
TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Penticton map area 82E, British Columbia, 1983-.

20
WOODSWORTH, G.J., Geol. Surv. Can.:
Eastern margin of the Coast Plutonic Complex, British Columbia, 1980-.
See:
Crustal deformation and regional metamorphism across a terrane boundary, Coast Plutonic Complex, British Columbia; Tectonics, vol. 6, no. 3, p. 343-361, 1987.

MANITOBA/MANITOBA

21
BAILES, A.H., Manitoba Energy and Mines (Geological Services):
Chisel-Morgan Lakes project, Manitoba, 1988-90.
See
Chisel-Morgan Lakes project; Manitoba Energy and Mines, Rept. Field Activities, p. 70-79, 1987.

Regional 1:20 000 scale mapping has demonstrated that up to 20% of volcanic rocks in the 75 km^2 area between Chisel and Morgan Lakes, near Snow Lake, are affected by silicification, Fe-Mg metasomatism or both. Alteration is interpreted to be due to hydrothermal activity caused by heating of intrastratal water by several large synvolcanic tonalite plutons. An over 5 km stratigraphic section of Amisk Group volcanic rocks has been examined.

22
GILBERT, H.P., Manitoba Energy and Mines (Geological Services):
Tartan Lake, Manitoba, 1986-90.
See:
Tartan Lake-Lac Aimee area preliminary report; Manitoba Energy and Mines, Rept. Field Activities, 1988.

The Tartan Lake area map will extend the coverage immediately north of the Flin Flon-White Lake Map (GR87-1) and will be part of a 1:50 000 compilation map of the Flin Flon area.

23
SYME, E.C., Manitoba Energy and Mines (Geological Services):
Athapapuskow Lake, Manitoba, 1985-89.
See:
Athapapuskow Lake project; Manitoba Energy and Mines, Rept. Field Activities, p. 30-39, 1987.

1:20 000 mapping of a 450 km^2 area southeast of Flin Flon will document Early Proterozoic Amisk Group volcanic stratigraphy and Missi Group fanglomerate stratigraphy. The stratigraphic and structural setting of mineral deposits and geochemical characteristics of volcanic and plutonic units are also being investigated.

24
ZWANZIG, H.V., SCHLEDEWITZ, D.C.P., Manitoba Energy and Mines (Geological Services):
Kisseynew project, Manitoba, 1984-89.
To establish the lithology, structure, stratigraphy and mineral potential of geological formations on the south flank of the Kisseynew metamorphic complex.

NEW BRUNSWICK/ NOUVEAU-BRUNSWICK

25
WILSON, R.A., New Brunswick Natural Res., Energy (Mineral Res. Div.):
New Denmark project (Mineral Development Agreement), 1986-89.
Ten 1:20 000 geology maps, a 1:50 000 geological compilation, and map report are being prepared for completion by March 1989. Geochemical investigations of volcanic rocks led to presentation delivered at Atlantic Geoscience Symposium, Antigonish, N.S., February 1988. "Geochemistry and tectonic significance of Siluro-Devonian mafic volcanic rocks in the Chaleur and Tobique zones, New Brunswick". A paper is being prepared for publication.

NEWFOUNDLAND/LABRADOR/ TERRE-NEURE/LABRADOR

26
COLMAN-SADD, S., Newfoundland Dept. Mines and Energy:
Geological mapping, Snowshoe Pond area, Newfoundland, 1985-87.
See:
Tectonic-stratigraphic subdivisions of central Newfoundland; Geol. Surv. Can., Paper 88-1B, p. 91-98, 1988.

Mapping completed; report to be written.

27
DICKSON, W.L., Newfoundland Dept. Mines and Energy:
South Coast granites, Newfoundland, 1987-:
See:
Geology and mineralization in the Hungry Grove Pond (1M/14) map area, Newfoundland; Newfoundland Dept. Mines and Energy, Rept. 88-1, 1988.

Plutonic, metasedimentary and plutonic rocks of the Gander, Avalon and Dunnage Zones were examined to determine the structure, stratigraphy and metallogenesis of the area. Major faults divide the area into blocks with distinctive geological histories. Major faults are present and associated with gold mineralization.

28
O'BRIEN, B.H., Newfoundland Dept. Mines and Energy:
La Poile – La Poile River project, Newfoundland.

29
O'BRIEN, S.J., KNIGHT, I., Newfoundland Dept. Mines and Energy:
Avalonian geology of southwestern Bonavista Bay, Newfoundland, 1986-.
See:
Geology of the Eastport W/2 map area, Bonavista Bay, Newfoundland; Newfoundland Dept. Mines, Rept. 87-1, p. 257-270, 1987.

Regional study of structure, stratigraphy and chemistry of Late Precambrian Avalonian rocks near Avalon-Gander boundary, to ascertain tectonic history of Avalonian rocks and their relationship to adjacent terrane.

30
O'NEILL, P.P., KNIGHT, I., Newfoundland Dept. Mines and Energy:
South coast/Gander, Newfoundland, 1986-89.
Involves 1:50 000 mapping (now completed), a metamorphic/structural study of the Gander/Dunnage Zones and the nature of their boundary in this area.

31
RYAN, B., LEE, D., DUNPHY, D., Newfoundland Dept. Mines and Energy:
Regional geological mapping and mineral-potential studies of Proterozoic plutonic rocks and gneisses, Nain-Strange Lake area, Labrador, 1985-89.

See:
Geology of the eastern Churchill Province between Anaktalik Brook and Cabot Lake (NTS 14,D/2,6,7); Newfoundland Dept. Mines, Rept. 87-1, p. 155-159, 1987.

Regional mapping and sampling under the project have all been but finished. Two 1:50 000 NTS sheets will be published this year; two others are being compiled. Final report is expected to be completed in 1990, accompanied by two 1:100 000 compilation sheets of eight 1:50 000 sheets covered by the survey (14D/1,2,3,4,5,6,7,8 and parts of 24A/1,8).

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

32
BROPHY, J.A., ROACH, D., Indian and Northern Affairs Canada (Geology Division), Ottawa Univ. (Geology):
Carp Lake/Tundra area 75M/W, 76D/SW and 85P, 1988-90; Ph.D. thesis (Roach).

33
GIBBINS, W.A., Indian and Northern Affairs Canada (Geology Division):
Hope Bay volcanic belt 76N/SW, 76O/NE & 77A/S, 1988-90.

34
GIBBINS, W.A., Indian and Northern Affairs Canada (Geology Division):
Central Baffin Island volcanic belt mapping 37/W, 1988-90.

35
GRIEP, J.L., Indian and Northern Affairs Canada (Geology Division):
Pistol Bay area – Kaminak belt 55K/SW, 1988-90.

36
HENDERSON, J.B., Geol. Surv. Can.:
Keskarrah Bay map-area, District of Mackenzie, 1976-.

37
JACKSON, V.A., Indian and Northern Affairs Canada (Geology Division):
Geology of the Russell Lake area (85O/4).
Geology of the Kathawachaga Lake area (76L), 1986-90.
See:
Geology of the Russell Lake area (85O/4); Indian and Northern Affairs Canada Geoscience Forum Exploration Overview, p. 25-27, 1987.

Geology of the Hood River area (76L North); ibid., p. 25, 1987.

38
JACKSON, V.A., Indian and Northern Affairs Canada (Geology Division):
Lower Hood River (Pistol Lake), Northwest Territories, 1988-90.

39
JAMES, D.T., DIXON, J.M., CARMICHAEL, D.M., Queen's Univ. (Geological Sciences):
Geology across part of the Thelon Front, Northwest Territories, 1983-88; Ph.D. thesis (James).
See:
A transect across the Thelon Front: lithologic, structural and metamorphic relationships between the Slave and Churchill structural provinces; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 58, 1987.

To map the geology on either side of and across the Thelon Front and to determine the significance of the structural and metamorphic variations observed across the boundary between the Slave and Churchill structural provinces.

40
KING, J.E., Geol. Surv. Can.:
Contwoyto-Nose Lake area, Slave Province, N.W.T., 1987-.
See:
Deformation and plutonism in the western Contwoyto Lake map area, central Slave Province, District of Mackenzie, N.W.T.; Geol. Surv. Can., Paper 88-1C, p. 161-176, 1988.

41
THORSTEINSSON, R., Geol. Surv. Can.:
Cornwallis and adjacent smaller islands, District of Franklin, 1965-.

NOVA SCOTIA/NOUVELLE-ÉCOSSE

42
BARR, S.M., MACDONALD, A.S., WHITE, C.E., VAN WAGONER, N.A., THICKE, M., Acadia Univ. (Geology):
The Fourchu Group and associated granitoid rocks, southeastern Cape Breton Island, Nova Scotia, 1985-89; M.Sc. thesis (Thicke).
See:
The Fourchu Group and associated granitoid rocks of southeastern Cape Breton Island, Nova Scotia; Nova Scotia Dept. Mines and Energy, Report 87-5, p. 185-188, 1987.

This project will produce geological maps of the Fourchu Group and associated granitoid rocks (scale 1:25 000). Major goals are to compare stratigraphy, volcanic setting, and tectonic environment among five separate belts of Fourchu Group rocks in SE Cape Breton Island. In addition to mapping, the project includes petrochemistry, structure, physical volcanology, and radiometric dating.

43
BARR, S.M., WHITE, C.E., Acadia Univ. (Geology):
Field relations, petrology, age, and economic potential of metavolcanic, metasedimentary, and granitoid rocks of the Eastern Caledonian Highlands, southern New Brunswick, 1985-90.
See:
Field relations, petrology, and age of the northeastern Point Wolfe River Pluton and associated metavolcanic and metasedimentary rocks, eastern Caledonian Highlands, New Brunswick; Geol.Surv. Can., Paper 88-1B, p. 55-67, 1988.

To map (scale 1:25 000) the metavolcanic, metasedimentary, and plutonic rocks of the Caledonian Highlands east of Saint John, New Brunswick, and to interpret the stratigraphy, petrochemistry, and age of these rocks.

44
BOEHNER, R., RYAN, R., CARTER, D., Nova Scotia Dept. Mines and Energy:
Carboniferous Basins studies – Cumberland Basin project, 1984-89.
See:
Cumberland Basin project – An update; Nova Scotia Dept. Mines and Energy, Rept. 87-1, p. 123-139, 1987.

Carboniferous carbonate buildups in Nova Scotia; Nova Scotia Dept. Mines and Energy, OFR 87-10, 1987.

Basin mapping (1:10 000) continued and will be completed summer 1988. Specific investigations of evaporites and stratigraphic drilling continues.

45
COREY, M.C., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith, 1984-.
See:
Geological map of Mount Uniacke (NTS sheet 11D/13 west half); Nova Scotia Dept. Mines and Energy, Map 87-8, 1987.

Geology of Map Sheet 21A/9 is in preparation. Field mapping of 1 map sheet 21A/11 will be completed this year and will be released in 1989.

46
HAM, L.J., HORNE, R.J., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith, 1985-89.
To produce detailed (1:50 000) maps of the South Mountain Batholith, subdividing the granitic rocks into distinct mappable units and to evaluate the SMB's economic potential.

47
KONTAK, D., SMITH, P., KERRICH, R., STRONG, D.F., REYNOLDS, P., CHATTERJEE, A.K., Nova Scotia Dept. Mines and Energy:
Au, Sn, W mineral deposits, Meguma Zone, Nova Scotia, 1986-88.
See:
East Kemptville leucogranite: A possible mid-Carboniferous topaz granite; Nova Scotia Dept. Mines and Energy, Rept. 87-1, 1987.

Alteration haloes and their implications for gold mineralization in the Meguma Group of Nova Scotia; ibid., 1987.

To generate practical, integrated model for genesis of Meguma hosted lode gold deposits. Evaluate the East Kemptville Sn-base metal deposit and place it in the context of granitoid evolution in Meguma Zone.

48
MacDONALD, M.A., HORNE, R.J., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith project: Bedrock mapping, 1984-89.
See:
Geological map of Halifax and Sambro (N.T.S. sheets 11D/05 and 11D/12). Scale 1:50 000; Nova Scotia Dept. Mines and Energy, Map 87-6, 1987.

Petrological and geochemical aspects of a zoned pluton within the South Mountain Batholith, south-central Nova Scotia; Nova Scotia Dept. Mines and Energy, Report 87-5, 1987.

South Mountain Batholith project; ibid., 1987.

49
RAESIDE, R., BARR, S.M., JAMIESON, R., YAOWANOIYOTHIN, W., CAMPBELL, J., Acadia Univ. (Geology), Dalhousie Univ. (Geology):
Geological mapping, Cape Breton Highlands, Nova Scotia, 1983-87; M.Sc. theses (Yaowanoiyothin, Campbell).
See:
Grenvillian basement in the northern Cape Breton Highlands, Nova Scotia; Can. J. Earth Sci., vol. 24, p. 992-997, 1987.

Geological mapping on a 1:50 000 scale has been completed across the Cape Breton Highlands. Tectonic interpretations using aeromagnetic and deep seismic reflection profiles, and argon and U-Pb dating are currently in progress.

50
SIMS, W.A., Mount Allison Univ. (Geology):
Study of the igneous rocks of Antigonish Harbour area, Nova Scotia.

ONTARIO/ONTARIO

51
ARMSTRONG, D., Ontario Geol. Surv.:
Mapping of Paleozoic strata on the Bruce Peninsula, Ontario, 1987-89.
See:
Paleozoic geology of the northern Bruce Peninsula; Ontario Geol. Surv., Misc. Paper 137, p. 392-395, 1987.

The Paleozoic strata of the Bruce Peninsula is being lithostratigraphically mapped at 1:50 000 scale. The mapping will highlight units currently extracted for building stone and crushed stone. Subsurface and remotely sensed information will be incorporated into the study.

52
AYER, J.A., Ontario Geol. Surv.:
Synoptic compilation of the Lake of the Woods Greenstone Belt, Ontario 1988-90.

53
BERGER, B., Ontario Geol. Surv.:
Geology of the Manitou Stretch area, District of Kenora, Ontario, 1988-89.

54
BRIGHT, E.G., Ontario Geol. Surv.:
Geology of the White Stone Lake area, Central Gneiss Belt, Grenville Province, District of Parry Sound, Ontario, 1986-87.

55
EASTON, R.M., Ontario Geol. Surv.:
Mapping of the Minden area (NTS 31D/15), Grenville Structural Province, Ontario, 1983-87.

Reports and compilation map completed, project terminated.

56
EASTON, R.M., Ontario Geol. Surv.:
Mapping of the Darling area (NTS 31F/2, NE), Grenville Structural Province, Ontario, 1987-88.
See:
Darling area, Lanark and Renfrew counties; Ontario Geol. Surv., Misc. Paper 137, p. 220-228, 1987.

Study was designed to map an area of the CMB that contained abundant metavolcanic rocks, a major structural zone hosting known gold prospects, and low metamorphic grade supracrustal rocks. Mapping completed in 1987, report will be released in 1988.

57
EASTON, R.M., Ontario Geol. Surv.:
Geological compilation of the central metasedimentary belt, Ontario, 1987-89.
As part of the Geology of Ontario Project, a series of 1:50 000 scale maps for the Central Metasedimentary Belt, Grenville Province will be produced between 1987-1989. These maps will be based mainly on existing information, with some field checks, and represent a preliminary synthesis of the geology of the CMB in Ontario.

58
JENSEN, L.S., Ontario Geol. Surv.:
Geology of the Horseshoe Lake greenstone belt, District of Kenora (Patricia Portion), Ontario, 1987-88.
See:
Ontario Geol. Surv., Misc. Paper 137, p. 104-108, 1987.

59
JOHNSTONE, R.M., Ontario Geol. Surv.:
Black River-Matheson project, Ontario, 1982-88; M.Sc. thesis.

60
JUNNILA, R.M., Ontario Geol. Surv.:
Reconnaissance geology of Yarrow and Doon Townships with emphasis on the Huronian Supergroup, District of Timiskaming, Ontario, 1987-88.
See:
Reconnaissance investigations of the geology of Yarrow and Doon Townships, District of Timiskaming, with emphasis on the Huronian Supergroup; Ontario Geol. Surv., Misc. Paper 137, p. 205-209, 1987.

61.
KOR, P.S.G., DELORME, R.J., MILLER, M., Ontario Geol. Surv., Univ. Waterloo (Earth Sciences):
Quaternary geology of the area east of Georgian Bay, Ontario, 1986-90; M.Sc. thesis (Delorme).
See:
Quaternary geology of the Parry Sound area; Ontario Geol. Surv., Misc. Paper 137, p. 377-379, 1987.

This programme is funded under the COMDA (Canada-Ontario Mineral Development Agreement) and has been assigned to provide basic surficial mapping and background geochemistry for till prospecting and acid rain studies. Five map sheets (1:50 000) were studied in 1987 (in progress). Two map sheets (1:50 000) are planned for 1988. A final report will be compiled by 1990.

62
KRESZ, D.U., ZAYACHIYSKY, B., Ontario Geol. Surv.:
Precambrian geology of the northern Long Lake area, District of Thunder Bay, Ontario, 1987-88.
See:
Northern Long Lake area, District of Thunder Bay; Ontario Geol. Surv., Misc. Paper 137, p. 93-98, 1987.

63
McROBERTS, G., Ontario Geol. Surv.:
Geology, structure and metamorphism in the Parry Sound area, Ontario, 1987-89.

64
MARMONT, S., EVANS, D., Ontario Geol. Surv.:
Regional geology of the Lower Detour-Hopper-Sunday Lakes area, Ontario, 1987-89.

65
PIROSHCO, D., KETTLES, K., Ontario Geol. Surv.:
Geology of Tisdale and Whitney Townships with emphasis on structural geology, District of Cochrane, Ontario, 19897-89.
See:
Geology of South Whitney Township with emphasis on structural geology and gold potential, District of Cochrane; Ontario Geol. Surv., Misc. Paper 137, p. 165-174, 1987.

66
SMITH, P.M., Ontario Geol. Surv.:
Geology and metallogeny of the Vista Lake area, northwestern Ontario, 1988.

67
SUTCLIFFE, R.H., SMITH, A.R., GUPTA, V.K., SWEENY, J.M., Ontario Geol. Surv., Univ. Western Ontario (Geology):
Mafic intrusions in northwestern Ontario; M.Sc. thesis (Sweeny).
See:
Keeweenawan intrusive rocks of the Thunder Bay area; Ontario Geol. Surv., Misc. Paper 137, p. 248-255, 1987.

Mapping and petrological studies of Archean mafic intrusions (Mulcany, Lac des Iles Complex, Tib Gabbro) and Keweenawan intrusions in Thunder Bay area. Study includes gravity surveys in the Lac des Iles area and metalogenetic investigations.

QUÉBEC

68
BRISEBOIS, D., LACHAMBRE, G., Ministère de l'Énergie et des Ressources du Québec:
Compilation géologique de la Gaspésie, Québec.
Production de cartes de compilation de la Gaspésie au 1:50 000 afin de condenser beaucoup d'information en un seul document et de plus mettre à jour cette information.

69
COLPRON, M., Université de Burlington (U.S.A.):
Géologie, stratigraphie, structurographie de la région du Lac Brome, Estrie, Québec; thèse de maîtrise en sciences.
Voir:
Géologie de la région de Sutton Nord-Est; Ministère de l'Énergie et des Ressources du Québec, DP86-33, 1987.

Géologie de la région de Sutton Nord-Est; ibid., MB 87-29, 1987.

70
DUPUY, H., HOGARTH, D.L., Ministère de l'Énergie et des Ressources du Québec, Université d'Ottawa (Géologie):
Géologie de la région Wakefield-Cascades, Québec, 1986-88; thèse de maîtrise (Dupuy).
Cartographie à l'échelle 1:10 000 de la région de Wakefield-Cascades (Outaouais) en vue de préciser les contextes stratigraphique et structural des occurrences minérales. Étude détaillée des gîtes et indices les plus prometteurs.

71
LABBÉ, J-Y., Université Laval (Géologie):
Géologie, stratigraphie, structurographie de la région de Weedon Estrie, Québec; thèse de maîtrise en sciences.
Voir:
Géologie de la région de Weedon-Estrie; Ministère de l'Énergie et des Ressources du Québec, DP 86-28, 1987.
Géologie de la région de Weedon-Lingwick; ibid., MB 87-30, 1987.

72
LACROIX, S., SIMARD, A., DION, D-J., PROULX, M., CHURCH, H., Ministère de l'Énergie et des Ressources du Québec:
Harricana-Turgeon, Québec, 1987-89.
Voir:
Levé de sismique réfraction dans la région Harricana-Grasset; Ministère de l'Énergie et des Ressources du Québec, DP 87-18, 1987.

4ième année de cartographie des 4 années prévues. Début du travail de synthèse géologique, géochimique et pétrographique.

73
LAMOTHE, D., BARRETTE, P., Ministère de l'Énergie et des Ressources du Québec:
Cartographie de la région du lac Bilson, Fosse de l'Ungava, Nouveau-Québec, 1987-88.
Voir:
Géologie de la région du lac Bilson; Ministère de l'Énergie et des Ressources du Québec, DP 87-23, 1987.

Synthèse géologique de la Fosse de l'Ungava, évaluation du potentiel minéral.

74.
LAMOTHE, D., MOORHEAD, J., Ministère de l'Énergie et des Ressources du Québec:
Cartographie de la région du lac Vigneau, Nouveau-Québec, 1987-88.
Voir:
Géologie de la région du lac Vigneau, Fosse de l'Ungava, Nouveau-Québec; Ministère de l'Énergie et des Ressources du Québec, DP 88-05, 1988.

Synthèse géologique de la Fosse de l'Ungava, évaluation du potentiel minéral.

75
MARQUIS, R., Université de Montréal (Géologie):
Géologie, stratigraphie, structurographie de la région de Richmond, Estrie, Québec; thèse de doctorat en sciences.
Voir:
Géologie de la région de Richmond; Ministère de l'Énergie et des Ressources du Québec, MB 86-31, 1987.

Géologie de la région de Richmond; ibid., MB 87-31, 1987.

76
MARTIGNOLE, J., INDARÈS, A., KISH, L., IREM/MERI, Ministère de l'Énergie et des Ressources du Québec:
Tectonique et stratigraphie de la partie N.-E. du super-groupe de Wakeham, Québec, 1986-88.
Voir:
Le super-groupe de Wakeham dans la partie Nord-Est de la Province de Grenville; Ministère de l'Énergie et des Ressources du Québec, DV 87-25, 1987.

A déterminer les relations entre le super-groupe de Wakeham et les terrains avoisinants au Grenville.

77
NANTEL, S., MARTIGNOLE, J., Ministère de l'Énergie et des Ressources du Québec, Université de Montréal (Géologie):
Le complexe anorthositique de Rivière-Pentecôte, partie NE du Grenville. Lithologie, structure et potentiel économique, 1983-88.
En 1987, dans le cadre du project de cartographie du complexe anorthositique de Rivière-Pentecôte, une attention particulière à été donnée aux minéraux industriels: anorthosite (source potentielle d'alumine), apatite, quartzite et wollastonite.

78
TREMBLAY, A., Université Laval (Géologie):
Géologie, stratigraphie, structurographie de la région de Sherbrooke, Estrie, Québec; thèse de doctorat en sciences.
Voir:
Formation d'Ascot entre Sherbrooke et Ascot Corner; Ministère de l'Énergie et des Ressources du Québec, MB 86-26, 1987.

Géologie de la région de Sherbrooke partie nord, ibid., MB 87-23, 1987.

79
VAN DER LEEDEN, J., BÉLANGER, M., Ministère de l'Énergie et des Ressources du Québec:
Cartographie, synthèse géologique régionale, 1983-88.
Voir:
Le projet Rivière George: une première évaluation métallogénique; Ministère de l'Énergie et des Ressources du Québec, DV 87-25, p. 95-101, 1987.

Synthèse géologique et métallogénique pour l'arrière-pays de la Fosse du Labrador, secteur rivière George, Nouveau-Québec.

SASKATCHEWAN/SASKATCHEWAN

80
DELANEY, G., Saskatchewan Geol. Surv.:
Bedrock geological mapping, Laonil Lake area, northeastern Saskatchewan, 1986-89:
See:
Bedrock geological mapping, Carruthers-Uskik Lakes area (Part of NTS 63M-11 and -12); Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 8-17, 1987.

The Laonil Lake area, a key window on the enigmatic Glenie Lake Domain, Trans-Hudson Orogen; Geol. Assoc. Can. – Mineral Assoc. of Can., Program with abstracts, vol. 12, p. 36, 1987.

81
HARPER, C., Saskatchewan Geol. Surv.:
Gold belt geology: Waddy-Windrum Lakes area, Saskatchewan, 1984-87.
See:
Review of a Lower Proterozoic gold belt from northern Saskatchewan; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 95, 1987.

Tectonic setting of Early Proterozoic volcanism of the La Ronge Domain, northern Saskatchewan; ibid., p. 100, 1987.

The character of Early Proterozoic plutonism in the central Metavolcanic Belt, northern Saskatchewan; ibid., p. 95, 1987.

Trace element geochemistry in the Waddy-Windrum Lakes area; Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 60-64, 1987.

Controls on gold mineralization in the Reindeer Zone, an Early Proterozoic gold province, northern Saskatchewan, Canada; Bicentennial Gold 88, Melbourne, May 1988 (Extended abstract).

1:20 000 scale geological mapping of the northern part of the Central Metavolcanic Belt between Waddy and Star Lakes has been completed. Petrographic studies and scrutiny of geochemical data continuing. Compilation at 1:50 000 to be completed for release in November, 1988.

82
SLIMMON, W.L., MACDONALD, R., Saskatchewan Geol. Surv.:
Gold belt geology, Saskatchewan, 1987-88.
See:
Bedrock geological mapping, Pine Channel area (part of NTS 740-7); Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 28-33, 1987.

To establish a regional geological setting with respect to the areas of gold mineralization in the area.

83
THOMAS, D.J., Saskatchewan Geol. Surv.:
Bedrock geological mapping, Bing Lake area, Saskatchewan, 1984-89.
See:
Review of a Lower Proterozoic gold belt from northern Saskatchewan; Geol. Assoc. Can. – Mineral Assoc. Can., Program with abstrcts, vol. 12, p. 95, 1987.

The Lower Proterozoic La Ronge gold belt; Prospectors and Developers Assoc. Can. Annual Convention, Toronto, March 8-11, 1987.

The character of Early Proterozoic plutonism in the Central Metavolcanic Belt, northern Saskatchewan; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 95, 1987.

Structural relations in accreted terranes of the Trans-Hudson Orogen, Saskatchewan: telescoping in a collisional regime?; ibid., p. 67, 1987.

Multiple reactivations in the Trans-Hudson Foreland, Greater Beaverlodge area, northwestern Saskatchewan; ibid., p. 69, 1987.

Tectonic setting of Early Proterozoic volcanism of the La Ronge Domain, northern Saskatchewan; ibid., p. 100, 1987.

To geologically map southern portion of Central Metavolcanic Belt, La Ronge Domain at 1:20 000 scale and establish geological setting of gold and base metal mineralization.

YUKON TERRITORY/ TERRITOIRE DU YUKON

84
DODDS, C.J., Geol. Surv. Can.:
Operation Mount St. Elias, Yukon–British Columbia, 1973-.

85
THOMPSON, R.I., Geol. Surv. Can.:
Stratigraphy and structure of Dawson, Larsen Creek and Nash Creek map areas, Yukon Territory, 1980-.

AREAL MAPPING, LESS DETAILED THAN 1:50 000/CARTOGRAPHIE, À PLUS PETITE ÉCHELLE QU'AU 1:50 000

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

86
GABRIELSE, H., Geol. Surv. Can.:
Operation Finlay, British Columbia, 1970-.

87
GABRIELSE, H., Geol. Surv. Can.:
Operation Dease, British Columbia, 1977-.

88
MONGER, J.W.H., Geol. Surv. Can.:
Geology of the Ashcroft and Hope map-areas, British Columbia, 1980-.

89
RADLOFF, J., ROSS, J.V., Univ. British Columbia (Geological Sciences):
Origin and evolution of fabrics in the Black Riders ultramafic klippe at Dunford Lake, central British Columbia, 1987-89; M.Sc. thesis (Radloff).

90
RODDICK, J.A., Geol. Surv. Can.:
Coast Mountains project, British Columbia, 1963-.

91
WHEELER, J.O., Geol. Surv. Can.:
Lardeau map-area, British Columbia, 1979-.

92
WOODSWORTH, G.J., Geol. Surv. Can.:
Kemano project, British Columbia, 1977-.

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

93
CURRIE, K.L., Geol. Surv. Can.:
Geology of the southern Long Range, Newfoundland, 1985-.

94
ERMANOVICS, I.F., Geol. Surv. Can.:
Archean rocks of the Nain Province in Hopedale (13N), Snegamook Lake (13K), and Makkovik (13O) map-areas, Labrador, 1978-.

95
GOWER, C.F., Newfoundland Dept. Mines and Energy:
Reconnaissance geological mapping in the Grenville Province eastern Labrador, 1979-.
See:
Metamorphic conditions and $^{40}Ar/^{39}Ar$ geochronological contrasts across the Grenville Front Zone, coastal Labrador, Canada; Lithos, p. 13-35, 1988.

96
GOWER, C.F., PREVEC, S., VAN NOSTRAND, T., Newfoundland Dept. Mines and Energy, McMaster Univ. (Geology), Memorial Univ. (Earth Sciences):
1:100 000 reconnaissance geological mapping in the Grenville Province, eastern Labrador, 1979-.
See:
The Double Mer Formation; Later Proterozoic stratigraphy of the Northern Atlantic Regions: Blackie, p. 113-118, 1987.

Geology of the St. Lewis River map region, Grenville Province, eastern Labrador; Newfoundland Dept. Mines and Energy, Rept. 88-1, 1988.

The present phase of mapping is now complete; the project, since its inception, has covered 53 1:50 000 sheets. Synthesis and writing-up has now commenced and will be continuing for the next 3-4 years.

97
NUNN, G.A.G., NOEL, N., Newfoundland Dept. Mines and Energy:
Regional geology east of Michikamau Lake, central Labrador, 1980-.
Stratigraphy, structure, mineral potential and geodynamic evolution of area. Final map and report nearing completion.

98
THOMAS, A., CULSHAW, N., ARIMA, M., HERD, R.K., ACKERMAND, D., Newfoundland Dept. Mines and Energy, Geol. Surv. Can.:
Geology of the Winokapau Lake area, 1982-87.
Geology of the Lac Ghyvelde – Lac Long area, 1983-87. Gold reconnaissance in the Archean Ashuanipi Complex of western Labrador, 1986. Geology of the Red Wine Mountains and surrounding area, 1978-.
Areal mapping of north-central Grenville Province at 1:100 000 scale will be complete upon completion of Red Wine Mountains report.

99
WARDLE,. R.J., Newfoundland Dept. Mines and Energy:
Regional geology of the Goose Bay region, Labrador (13F), 1983-.
See:
Geology of the Goose-Pinus Rivers area (13F,3,4,5, and 6), central Grenville Orogen, Labrador; Newfoundland Dept. Mines and Energy, Rept. 88-1, 1988.

1987 was final field year for project. Work is underway to prepare 1:100 000 and 1:25 000 geological maps and government reports. A summary version will be prepared for external publication.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

100
BOSTOCK, H.H., Geol. Surv. Can.:
Geology of Fort Smith, District of Mackenzie, 1980-.

101
BOSTOCK, H.H., Geol. Surv. Can.:
Geology, Taltston Lake and Fort Resolution (86H) map-areas, District of Mackenzie, 1985-.
See:
Geology of the north half of the Taltson Lake map area, District of Mackenzie; Geol. Surv. Can., Paper 88-1C, p. 189-198, 1988.

102
CECILE, M.P., Geol. Surv. Can.:
Stratigraphic and structural analysis of Late Paleozoic strata in the northern Mackenzie and Selwyn Mountains, 1985-.

103
CIESIELSKI, A., Geol. Surv. Can.:
Gneissic basement to the Fury and Hecla Formation and the Autridge Formation on Baffin Island, District of Franklin, 1979-.

104
FRISCH, T., Geol. Surv. Can.:
Precambrian geology of southeast Ellesmere, Devon and Cobourg Islands, District of Franklin, 1976-.

105
FRISCH, T., Geol. Surv. Can.:
Geology of Montresor River and lower Hayes River map areas, District of Keewatin, 1982-.

106
FRISCH, T., Geol. Surv. Can.:
Precambrian Shield of the central Boothia Uplift, District of Franklin, 1986-.

107
FRITH, R.A., Geol. Surv. Can.:
Geology of Indin Lake (86B) map-area, District of Mackenzie, 1972-.

108
FRITH, R.A., Geol. Surv. Can.:
Geology of Beechey-Duggan Lakes area, District of Mackenzie, 1980-.

109
GIBBINS, W.A., CULLEN, R., HOGARTH, D.D., Indian and Northern Affairs Canada (Geology Division):
Hope Bay volcanic belt, mapping and petrology of komatiitic peridotite, 1986-.
First reported komatiitic rocks from the Slave Province. Field mapping to continue in 1988-89.

110
HENDERSON, J.B., Geol. Surv. Can.:
Healey Lake map-area, District of Mackenzie, 1978-.

111
HENDERSON, J.B., Geol. Surv. Can.:
Artilley Lake map area, District of Mackenzie, 1984-.

112
HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Wager Bay "Shear Zone", District of Keewatin, 1985-.

113
JACKSON, G.D., Geol. Surv. Can.:
Operation Bylot, District of Franklin, 1967-.
See:
Geology and resource potential of a proposed National Park, Bylot Island, and northwest Baffin Island, Northwest Territories; Geol. Surv. Can., Paper 87-17, 1987.

114
JACKSON, G.D., Geol. Surv. Can.:
Operation Penny Highlands, District of Franklin, 1969-.

115
LeCHEMINANT, A.N., Geol. Surv. Can.:
Macquoid Lake (W½), Thirty Mile and Tebesjuak Lake map-areas, District of Keewatin, 1978-.

116
LeCHEMINANT, A.N., Geol. Surv. Can.:
Geology of Aberdeen Lake and parts of adjoining map areas, District of Keewatin, 1982-.

117
OKULITCH, A.V., Geol. Surv. Can.:
Geology of the Arctic Islands, 1984-.

118
SCHAU, M., Geol. Surv. Can.:
Geology of the Baker Lake map-area, District of Keewatin, 1980-.

119
TELLA, S., Geol. Surv. Can.:
Kamilukuak Lake map-area, District of Keewatin, 1979-.

120
TELLA, S., Geol. Surv. Can.:
Deep Rose Lake and parts of adjoining map areas, District of Keewatin, 1982-.

121
TELLA, S., Geol. Surv. Can.:
Chesterfield Inlet (55O), and parts of Tavani (55K/9,16) and Marble Island (55J/13,14) map areas, District of Keewatin, 1985-.
See:
Hanbury Island Shear Zone, a deformed remnant of a ductile thrust, District of Keewatin, N.W.T.; Geol. Surv. Can., Paper 88-1C, p. 283-289, 1988.

122
THOMPSON, P.H., Geol. Surv. Can.:
Tinney Hills (76J) – Overby Lake (76I W½) map areas, District of Mackenzie, 1983-.

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THORSTEINSSON, R., Geol. Surv. Can.:
Baumann Fiord (49C), Vendon Fiord (49D) and Strathcona Fiord (49E), District of Franklin, 1986-.

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TRETTIN, H.P., Geol. Surv. Can.:
Completion of reconnaissance geology, northern Ellesmere Island, District of Franklin, 1973-.

ONTARIO/ONTARIO

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BORN, P., BURBIDGE, G.H., Ontario Geol. Surv., Univ. Ottawa (Geology):
Geology of Brigstocke and Kittson Townships, District of Timiskaming, Ontario, 1987-88; Ph.D. thesis (Burbidge).
See:
Ontario Geol. Surv., Misc. Paper 137, p. 198-204, 1987.

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MONEY, P.L., GULLEY, A., Ontario Geol. Surv.:
Geological Integration Series, 1987-93.
To replace the current 1 inch to 4 mile Geological Compilation Series. A computer-processable database is planned as an integral part of the project. This will include specific information sources, a select bibliography, mineral deposit descriptions, and lithologic and structural data.

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MUIR, T.L., Ontario Geol. Surv.:
Hemlo tectono-stratigraphic study, District of Thunder Bay, northwestern Ontario, 1984-90.
See:
Ontario Geol. Surv., Misc. Paper 137, p. 117-129, 1987.

128
PERCIVAL, J.A., Geol. Surv. Can.:
Geology of the Chapleau and Groundhog River blocks, Ontario, 1986-.

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THURSTON, P.C., STOTT, G.M., BLACKBURN, C.E., JOHNS, G.W., WILLIAMS, H., FYON, J.A., SUTCLIFFE, R.H., OSMANI, I.M., CHIVARS, H.M., Ontario Geol. Surv.:
Geology of Ontario, 1987-.
Project will produce at 1:1 000 000, Geologic Tectonic, Metallogenic, Geophysical and Pleistocene Maps for the Prov. of Ontario and a descriptive volume to celebrate OGS centenary in 1991.

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CHEVÉ, S., BROUILLETTE, P., INRS-Géoressources:
Cartographie et métallogénie au NW de Schefferville, Québec, 1987-90.
Voir:
Reconnaissance géologique et métallogénique au NW de Schefferville: région du lac Fontisson; Ministère Énergie et Ressources du Québec, raport préliminaire, 1987.
Métallogénie de l'or dans le socle archéen du complex d'Ashuanipi; définition des métallotectes qui quident la mise en place des minéralisations aurifères. Travaux de cartographie au 1:50 000 complétés sur environ 25% du territoire d'étude.

131
CIESIELSKI, A., Geol. Surv. Can.:
Metamorphism and structure in northeast Superior Province, Québec, 1980-.

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CIESIELSKI, A., Geol. Surv. Can.:
Études es roches Archéennes et Protérozoiques dans la région du Front de Grenville entre Chibougamau et Val d'Or, Québec, 1984-.
See:
Geological and structural context of the Grenville Front, southeast of Chibougamau, Quebec; Geol. Surv. Can., Paper 88-1C, p. 353-366, 1988.

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DUBOIS, J-M.M., Université de Sherbrooke (Géographie):
Géologie du Quaternaire de la Côte Nord du Saint-Laurent, Québec, 1974-88.
Les travaux de terrain sont complétés et un rapport géologique est en cours.

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DUBOIS, J-M.M., GWYN, Q.H.J., Université de Sherbrooke (Géographie):
Le Quaternaire de l'île d'Anticosti, Québec, 1979-88.
Voir:
Répertoire commenté des datations ^{14}C du nord de l'estuaire et du golfe du Saint-Laurent, Québec et Labrador; Département de géographie, Univ. de Sherbrooke, Bull. de recherche no. 94-96, 1987.

Les plates-formes littorales et les terrasses fluviales rocheuses de l'île d'Anticosti, Québec: témoins géomorphologiques de niveaux marins préwisconsiniens; Annales de l'ACFAS, vol. 55, p. 176, 1987.

Pre-Wisconsinan relative sea-level fluctuations, northern Gulf of St. Lawrence, Québec; XIIè Congrès INQUA, progr. and abs., p. 54, 1987.

Les travaux de terrain et la cartographie préliminaire sont terminés et un rapport géologique est en cours.

135
KETTLES, I.M., Geol. Surv. Can.:
Surficial mapping in Fort Coulonge area, Quebec, 1986-.

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PERCIVAL, J.A., Geol. Surv. Can.:
Geology of the Ashuanipi Granulite Complex in the Schefferville area, Quebec-Newfoundland, 1986-.
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Structural character and history of the Ashuanipi complex in the Schefferville area, Quebec-Labrador; Geol. Surv. Can., Paper 88-1C, p. 57-60, 1988.

YUKON TERRITORY/ TERRITOIRE DU YUKON

137
GORDEY, S.P., Geol. Surv. Can.:
Geology of Nahanni map-area, Yukon and Northwest Territories, 1979-.

138
GORDEY, S.P., Geol. Surv. Can.:
Geology of Sheldon Lake (105J) and Tay River (105K) map area, east-central Yukon, 1982-.
See:
The South Fork volcanics: mid-Cretaceous caldera fill tuffs in east-central Yukon; Geol. Surv. Can., Paper 88-1E, p. 13-18, 1988.

ENVIRONMENTAL GEOSCIENCE/SCIENCES DE LA TERRE APPLIQUÉES À L'ENVIRONNEMENT

139
ALLEN, D., MICHEL, F.A., Carleton Univ. (Earth Sciences):
A reconstruction of the permafrost regime in the Mackenzie Delta – Beaufort Sea region and its paleoclimatic implications, 1985-88; M.Sc. thesis (Allen).
See:
The permafrost regime in the Mackenzie Delta – Beaufort Sea region, N.W.T. and its significance to the reconstruction of the paleoclimatic history; Proc. INQUA XII Congress, Ottawa, 1987.
The wide variation in the thickness and distribution of permafrost reflects, in part, differences in the subsurface delta lithologies and the complex past surface temperature history. All of these factors are being modelled for the past 100 000 years to analyse the permafrost variations.

140
BESWICK, A.E., BECKETT, P.J., COURTIN, G.M., TAPPER, G.O., McDONALD, M.K., TREPANIER, M., Laurentian Univ./CIMMER (Geology, Geography, Biology):
Geobotany, 1985-89; M.Sc. theses (McDonald, Trepanier).
To find a link between mineral enrichment in the soil, the physical or physiological manifestation of that enrichment in the overlaying vegetation and the detection of the changes, by remote sensing imagery that the vegetation exhibits. Two sites in glaciated terrain in Northern Ontario have been studied. An increase in mineralization tends to be reflected in metal concentration in the vegetation. MEIS imagery of the two sites is currently underway to correlate the areas of high metal concentration with abnormal reflectance patterns on the imagery.

141
DUBOIS, J-M.M., Université de Sherbrooke (Géographie):
Artificialisation des côtes du Québec, 1986-89.
Le projet vise à définir le degré d'artificialisation des côtes et le type d'empiétement. Des données préliminaires donnet déjà un aperçu de l'ampleur du phénomène.

142
EGGINTON, P.A., Geol. Surv. Can.:
Relationship of flood frequency and heavy metal uptake in growth rings of trees, 1981-.

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EGGINTON, P.A., Geol. Surv. Can.:
Periglacial processes, Canadian arctic, 1983-.

144
ELSON, J.A., WEBBER, G.R., McGill Univ. (Geological Sciences):
Provision of data to model the migration of radionuclides through the biosphere during a glacial cycle, 1986-88.

145
FLINT, J.E., DALRYMPLE, R.W., FLINT, J.J., U.S. Army Corps of Engineers, Queen's Univ. (Geological Sciences), Brock Univ. (Geological Sciences):
Stratigraphy of the Sixteen Mile Creek Lagoon, Niagara Peninsula, Ontario, 1979-86; M.Sc. thesis (Flint).
Stratigraphy of the Sixteen Mile Creek Lagoon, Niagara Peninsula, and its implications for the water-level history of Lake Ontario; Can. J. Earth Sci., vol. 25, 1988.

The research has discovered that Lake Ontario water levels have fluctuated above and below the isostatically-controlled level as a result of climatically-induced variations in water supply. The oscillations have an amplitude of ± 1m, and a period of 400-600 years and correlate with world-wide climatic episodes.

146
KETTLES, I.M., Geol. Surv. Can.:
Sensitivity of surficial sediments to effects of acid precipitation, 1980-.

147
KING, R.H., SCHEIBLI, F., SMITH, I.R., SOMR, C., Univ. Western Ontario (Geography):
Paleolimnology of Truelove Lowland, Devon Island, N.W.T., 1988-91; M.Sc. theses (Scheibli, Smith, Somr).
See:
Holocene environmental changes in Truelove Lowland, Devon Island, N.W.T.; The Canadian Arctic Islands, Canada's Missing Dimension, Nat. Mus. Natural Sci., Program and abstracts, p. 22-23, 1987.
As a result of the postglacial coastal emergence of Truelove Lowland a number of marine lagoons were progressively isolated from the sea. Today, these lakes, now primarily freshwater, cover approximately 22% of the Lowland. Sediment cores have been obtained from the three largest lakes using a modified Livingstone corer and sediment samples are being analyzed biologically, physically, chemically and mineralogically. As the lacustrine sediments represent depositional changes that have taken place within the lakes and the lake catchments during the last 10 500 years, it is hoped to use the paleoenvironmental record preserved in the sediments to reconstruct environmental changes during the Holocene.

148
WILLIAMS, P.J., SMITH, M.W., Carleton Univ. (Geotechnical Science Laboratories):
Investigation of soil freezing in association with a buried chilled pipeline in a large scale facility, 1981-.
See:
Deformation of a pipeline by frost heave; Arctic Petrol. Review, vol. 9, no. 2, p. 10, 1986/87.

ANALYTICAL METHODS AND ANALYSIS/MÉTHODES ANALYTIQUES ET ANALYSES

149
BOISVERT, R., BERGERON, M., TURCOTTE, J., INRS-Géoressources, Université Laval (Géologie):
Détermination des éléments du groupe du platine (EGP) par atomisation électrothermique et absorption atomique, 1987-89; thèse de maîtrise (Boisvert).
Dans ce travail, les conditions expérimentales de la détermination des éléments du groupe du platine par fusion au sulfure de nickel et absorption atomique-four au graphite seront examinées en détail. On attachera une importance particulière à la récupération des EGP au cours de la fusion.

150
CHAN, C., BINA, S., Ontario Geol. Surv.:
An accurate and sensitive method for the determination of mercury in geological materials by continuous-flow, cold-vapor, atomic absorption spectrophotometry, 1987-.
An accurate and sensitive method for the determination of Hg in geological materials is being developed. A LDC/Milton Roy mercury monitor is used as detector with its long path absorption cell to provide better sensitivity. The sample is digested at low heat with nitric and hydrochloric acids. The digested sample and stannous chloride solution are continuously pumped through a mixing coil and into a gas-liquid separator. The reduced mercury is separated and swept into the absorption cell and the atomic absorption at 253.7 nm is measured. The detection limit is estimated 5 ppb or lower. The Hg content of more than 40 international geological reference samples is being determined.

151
HALDEN, N.M., HAWTHORNE, F.C., DUROCHER, J.J.G., McKEE, J.S.C., Univ. Manitoba (Geological Sciences, Physics):
Micro-PIXE analysis of minerals and rocks at high energies Ep = 40 MeV, 1986-88.
In situ micro-analysis of trace elements, Rare earth elements, Gold and Platinum group elements at the < 10 ppm level.

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HALL, G.E.M., Geol. Surv. Can.:
Analytical services and development in geochemistry, 1958-.
See:
Determination of low concentrations of tungsten and molybdenum in geological materials using inductively coupled plasma atomic emission spectrometry with pre-concentration on activated charcoal; The Analyst, vol. 112, p. 631-635. 1987.

Analysis of geologic materials by inductively coupled plasma mass spectrometry with sample introduction by electrothermal vapourisation: Part 1. Determination of molybdenum and tungsten; J. Analytical Atomic Spectrometry, vol. 2, p. 473-480, 1987.

Separation and recovery of various sulphur species in sedimentary rocks for stable sulphur isotopic determination; Chem. Geol., vol. 67, p. 35-45, 1988.

The analysis of geological materials for fluorine, chlorine and sulphur using pyrohydrolysis and ion chromatography; J. Geochem. Explor., vol. 26, p. 177-186, 1988..

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LONGERICH, H.P., Memorial Univ. (Earth Sciences):
Inductively coupled plasma-mass spectrometric analysis of geological materials, 1983-.
See:
Determination of lead isotope ratios by inductively coupled plasma-mass spectrometry (ICP-MS); Spectrochemica Acta, Part B, vol. 42B, p. 39-48, 1987.

Trace analysis of natural alloys by inductively coupled plasma-mass spectrometry (ICP-MS): application to archeological native silver artifacts; ibid., p. 101-109, 1987.

Effects of operating conditions on the determination of the rare earths by inductively coupled plasma-mass spectrometry (ICP-MS); ibid., p. 75-92, 1987.

Development of methods for laser ablahon solid sample introduction, methods for rocks, minerals and waters. Development of isotope ratio capabilities.

154
RUCKLIDGE, J.C., KILIUS, L.R., QIA JIANG YIANG, Univ. of Toronto (Iso Trace Lab.):
Iodine-129 determination in groundwater, sediments, uranium ores, petroleum and meteorites, 1986-92.
See:
Accelerator mass spectrometry of ^{129}I at IsoTrace; Nuclear Instruments and Methods, B29, p. 72-76, 1987.

Isobar discrimination using the negative ion instability of hydrogen halides; ibid., p. 57, 58, 1987.

155
VANDER VOET, A., DOHERTY, W., Ontario Geol. Surv.:
The determination of trace elements in geological samples by inductively coupled plasma mass spectrometry, 1984-.
Routine methods in place for REE, and other elements. Work progressing on the determination of precious elements; investigating use of high solids nebulizer and the introduction of fused sample solutions.

EXPLORATION, ORGANIC/ APPLIQUÉE, ORGANIQUE

156
BARNES, M.A., BARNES, W.C., Univ. British Columbia (Geological Sciences):
Diterpenoid diagenesis in Powell Lake, British Columbia, 1981-.

157
BROOKS, P.W., Geol. Surv. Can.:
Development of extraction, identification and correlation systems for organic compounds from sedimentary rocks and crude oils, 1973-.
See:
Geochemistry of Winnipegosis discoveries near Tablelands, Saskatchewan; Geol. Surv. Can., Paper 88-1D, p. 11-20, 1988.

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FOWLER, M.G., Geol. Surv. Can.:
Hydrocarbon geochemistry of Arctic Archipelago and Canadian East Coast offshore, 1976-.

159
HÉROUX, Y., MICHOUX, D., DESJARDINS, M., SANGSTER, D., INRS-Géoressources:
Pétrographie et géochimie des matières organiques des séquences plombo-zincifères d'âge Carbonifère, Bassin Salmon River, Nouvelle-Écosse, Canada, 1985-89.
Voir:
Pétrographie et géochimie des matières organiques des séquences plombo-zincifères d'âge Carbonifère, Bassin Salmon River, N.-E., Canada; Soumis à Organic Geochemistry, janvier 1988.

Petrography and geochemistry of organic matter from lead-zinc bearing Carboniferous sequences of Salmon River, N.S., Canada; Soc. Organic Petrol., Ann. Meeting, October 1987.

Caractéristiques de la matière organique à proximité des indices de sulfures.

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HÉROUX, Y., TASSÉ, N., INRS-Géoressources:
Pétrographie et géochimie des matières organiques du Groupe de Beekmantown et des anomalies associées aux indices de sulfures de l'arche de Beauharnois et aux Montérégiennes, Québec, Canada, 1985-88.
Analyse du comportement des propriétés optiques des M.O. à proximité des intrusions montérégiennes et comme outil de zonéographie des anomalies vraisemblablement causées par la mise en place des indices de sulfures plombo-zincifères sur les flancs de l'arche de Beauharnois, Basses-Terres du Québec, Canada.

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JONASSON, I.R., Geol. Surv. Can.,:
Environment geochemistry, 1974-.

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MACKO, S.A., HARRIGAN, M., OSTRAOM, N., PULCHAN, K., WEAVER, F., QUICK, R., Memorial Univ. (Earth Sciences):
Organic geochemistry of stable nitrogen isotopes, 1987-88.
See:
Review of stable isotopic investigations of foodwebs in seagrass meadows; Subropical-tropical Seagrasses in the southeastern U.S., 1987.

High molecular-weight hydrocarbons in particulate matter of the northwest Gulf of Mexico; Mar. Env. Res., vol. 21, p. 3-9, 1987.

Isotopic fractionation of nitrogen and carbon in the synthesis of amino acids by micro-organisms; Isotope Geoscience, vol. 65, p. 79-92, 1987.

Possible mechanism of inhibition of rat platelet aggregation by a Prudhoe Bay crude oil and its alphatic, aromatic and heterocycle fractions; Toxicol. Appl. Pharmacol., vol. 90, p. 347-356, 1987.

Deep-Sea Hydrocarbon Seep Communities: evidence for energy and nutritional carbon; Sciences, vol. 238, p. 1138-1142, 1987.

Source rocks for western Newfoundland hydrocarbons; Newfoundland Mines and Energy, Paper 87-1, p. 151-154, 1987.

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McCONNELL, J., DAVENPORT, P.H., Newfoundland Dept. Mines and Energy:
An investigation of geochemical methods of gold exploration in Newfoundland and Labrador. A study of surficial geochemical methods applied to exploration for mineralization related to A-type granites, 1986-89.
The project is researching various sampling and analytical methods and the response of various sample media including soil, stream and lake sediment and humus in proximity to gold mineralization and granitoid mineralization. Emphasis in latter is on lake sediments.

164
MOSSMAN, D.J., KRUMBEIN, W., DYER, B.D., Mount Allison Univ. (Geology):
Nature and origin of stratiform kerogen seams in Lower Proterozoic Witwatersrand-type paleoplacers, 1988.
See:
The geochemistry of Witwatersrand-type gold deposits and the possible influence of ancient prokaryotic communities on gold dissolution and precipitation; Precambrian Res., vol. 30, p. 303-19, 1987.

Comparison of stratiform kerogens from lower Proterozoic paleoplacers in South Africa, Huronian Supergroup, Jacobina etc., to determine their geochemical nature and paleontological characteristics. Report on results of search for microfossils in these materials and outline problems relevant to studies of process of biomineralization in ancient sediments of this type.

165
NICHOL, I., BREE, D., Queen's Univ. (Geological Sciences):
Partitioning of gold in humus as a key to understanding gold dispersion in humus, 1985-89; M.Sc. thesis (Bree).
To investigate the nature of and factors affecting the effectiveness of gold dispersion in humus associated with gold mineralization.

166
NIELSEN, B., BARNES, M.A., Univ. British Columbia (Geological Sciences):
Stable carbon mass spectrometry of aromatic hydrocarbons formed during early diagenesis of lacustrine sediments, 1985-88; M.Sc. thesis (Nielsen).

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SNOWDON, L.R., Geol. Surv. Can.:
Hydrocarbon geochemistry of northern Interior Plains and Beaufort Sea, 1976-.
See:
Geological processes interpreted from gasoline range analyses of oils from southeast Saskatchewan and Manitoba; Geol. Surv. Can., Paper 88-1D, p. 33-40, 1988.

Correlation of the Canol Formation source rock with oil from Norman Wells; Organic Geochem., vol. 11, no. 6, p. 529-548, 1987.

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SNOWDON, L.R., Geol. Surv. Can.:
Petroleum geochemistry of Queen Charlotte Islands, British Columbia, 1987-.
See:
Progress report on organic geochemistry, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 251-253, 1988.

EXPLORATION,NON-ORGANIC/ APPLIQUÉE, NON-ORGANIQUE

169
BARRETT, T.J., JARVIS, I., FRALICK, P.W., ANDERSON, G.M., GEBERT, J., McGill Univ. (Geological Sciences):
Stratigraphic and geochemical controls on Fe-Zn- and Pb-rich metal deposits, 1986-88; M.Sc. thesis (Gebert).
See:
Metalliferous sediments from DSDP Leg 92: The East Pacific Rise Transect; Geochim. Cosmochim. Acta, vol. 51, p. 2241-53, 1987.

The solubility of sphalerite and galena in 1-5m NaCl solutions to 300°C; Geochim. Cosmochim. Acta, vol. 52, 1988.

Rare-Earth Element Geochemistry of Metalliferous sediments from DSDP Leg 92: The East Pacific Rise Transect; Chemical Geol., vol. 67, no. 3/4, 1988.

Major projects in progress are: metallogeny of sediment-hosted Fe-Zn-Cu sulfide deposits in the Northern Labrador Trough; and metallogeny of volcanogenic Cu-Au-rich sulfide deposits in the central Abitibi belt. Barnett has applied to participate in ODP Leg 123 or 124 (late 1988).

170
BEAUDOIN, A., PERRAULT, G., Ecole Polytechnique (Génie minéral):
Pétrographie et géochimie de l'altération reliée au gîte aurifère Dest-Or, Abitibi, Québec, 1983-85; M.Sc.A. (Beaudoin).
See:
Distribution of gold, arsenic, antimony and tungsten around the Dest-Or orebody, Noranda District, Abitibi, Québec; J. Geochemical Exploration, vol. 28, p. 41-70, 1987.

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BELKABIR, A., PERRAULT, G., École Polytechnique (Génie minéral):
Étude structurale et métallogénique des minéralisations aurifères dans les formations précambriennes (protérozoïques) de l'Anti-Atlas occidental marocain, 1988-90; M.Sc. A. (Belkabir).

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BOURGET, A., PERRAULT, G., École Polytechnique (Génie minéral):
Géochimi de la minéralisation aurifère de la mine Kiena, Val d'Or, Québec, 1984-86; M.Sc.A. (Bourget).
See:
Distribution of gold around the Kiena S-50 Orebody, Val d'Or District, Québec, GAC-MAC, Réunion annuelle, Programme et resumes, vol. 12, p. 80, 1987.

Le gîte d'or S-50 a son lien dans une brèche à l'intérieur des formations mafiques et komatiitiques de la formation Jacola. La carbonatisation, la silicification et l'albitisation sont très étendues et centrées sur le gîte. Le gîte S-50 est enveloppé d'un halo d'or à médiane de 300 ppb Au d'une largeur de 120 m dans les épontes supérieures et 20 m dans les épontes inférieures. L'arsenic et l'antimoine marquent aussi la minéralisation aurifère.

173
DAVENPORT, P.H., Newfoundland Dept. Mines and Energy:
The use of lake sediment geochemistry in regional exploration for gold, 1987.
See:
The use of multi-element neutron activation analysis of organic lake sediment in geochemical exploration for gold; Newfoundland Dept. Mines and Energy, Rept. 88-1, 1988.

Dispersion patterns of gold from many gold occurrences in Newfoundland are detectable in organic lake sediment collected at 1 site per 6 km^2. Gold with As, Sb, Pb, Se and W patterns define areas of extensive hydrothermal alteration associated with major fault systems that controlled the formation and location of many of gold deposits.

174
ELSON, J.A., WEBBER, G.R., SUTTNER, W.C., McGill Univ. (Geological Sciences):
Investigation of the Wheatcraft Lake Dispersal Train south of Granville Lake, northwestern Manitoba, 1986-88; M.Sc. thesis (Suttner).

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FLETCHER, W.K., Univ. British Columbia (Geological Sciences):
Behaviour and dispersion of platinum in soils and sediments, southern British Columbia, 1987.
Preliminary studies being undertaken in conjunction with the British Columbia Ministry of Energy, Mines and Petroleum Resources

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FLETCHER, W.K., DAY, S., Univ. British Columbia (Geological Sciences):
Sampling stream sediments for gold in mineral exploration, southern British Columbia, 1985-; M.Sc. thesis (Day).
See:
Effects of valley and local channel morphology on the distribution of gold in stream sediments; 12th Internat. Exploration Geochemical Symp., 1987.

Particle size and abundance of gold in selected stream sediments, southern British Columbia; J. Geochem. Explor., vol. 26, p. 203-214, 1986.

Sediments collected from gravels may represent the best geochemical sample as a result of placer-forming processes that produce high Au concentrations. However, in very high energy streams, the small quantities of fine sediments in gravels may lead to unacceptable nugget effects.

177
FLETCHER, W.K., DAY, S., Univ. British Columbia (Geological Sciences):
Behaviour of gold in stream sediments-seasonal variations of gold content, Harris Creek, British Columbia, 1986-.
See:
Seasonal variation of gold content of stream sediments, Harris Creek, near Vernon: a progress report; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 511-514, 1988.

Gold content of stream sediments collected from gravel head bars can show considerable seasonal variability., In Ham's Creek maximum gold concentrations were found at or shortly after periods of maximum discharge in 1986 and 1987. Further studies are planned for 1988-9.

178
FLETCHER, W.K., DAY, S., HORSKY, S.S., Univ. British Columbia (Geological Sciences):
Analytical methods for precious metals, 1986-.
See:
Determination of gold in heavy-mineral concentrates: fire assay and atomic absorption versus instrumental neutron activation analysis; British Columbia. Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 509-510, 1988.

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FLETCHER, W.K., SIBBICK, S., Univ. British Columbia (Geological Sciences):
Behaviour of gold in soils and tills in proximity to Au mineralization, southern British Columbia, 1986-; M.Sc. thesis (Sibbick).
Preliminary results in the vicinity of the Nickel Plate Mine show significant differences between gold contents of the L-F-H, A, B and C horizons. Maximum gold values are found in the latter.

180
FORTESCUE, J.A.C., STAHL, H., Ontario Geol. Surv.:
A regional geochemical survey in the Goudreau Lake area, Ontario, 1987-89.
See:
A regional geochemical survey in the Goudreau Lake area, District of Algoma; Ontario Geol. Surv., M.P. 137, pl. 420-422, 1987.

A regional geochemical survey in the Goudreau Lake area, situated 40 km northwest of Wawa, Ontario, was completed during the summer season, 1987.

The area is being actively prospected for gold and this survey will supply much needed orientation data over the 500 km^2 area which will be combined with other geoscience data bases developed simultaneously. Sampling was carried out by using a unique coring technique which minimizes the inclusion of lake sediments which have been modified during technological time. A total of 358 sample sites were established which increased the sample density tenfold with respect to a previous reconnaissance data base established by the Canada-Ontario URP program in 1979.

181
FORTESCUE, J.A.C., STAHL, H., Ontario Geol. Surv.:
A regional geochemical survey in the Wart Lake area, Ontario, 1987-90.
See:
A regional geochemical survey in the Wart Lake area, District of Algoma; Ontario Geol. Surv., M.P. 137, p. 423-425, 1987.

A regional geochemical survey in the Wart Lake area, situated 74 km north of Sault Ste. Marie, Ontario, was completed during the late summer, 1987.

This survey is the first phase of a three-year project carried out as part of the Canada-Ontario Mineral Development Agreement (COMDA). Water and lake sediment core samples (392 samples) were collected from an area of 375 km2. As in the Goudreau Lake area, sampling was carried out by using a unique coring technique which minimizes the inclusion of lake sediments which have been modified during technological time. This survey will provide a summary of the geochemical behaviour of elements of importance to mineral exploration in the area.

182
FRYER, B.J., AL, T., NOEL, N., DAVIS, W., FINN, G., KERR, A., Memorial Univ. (Earth Sciences):
Geochemistry and isotopic studies applied to Precambrian crustal processes and mineral deposit genesis; M.Sc. theses (Al, Noel), Ph.D. theses (Davis, Finn, Kerr).
See:
Volatile outgassing and LILE enrichment in major lithospheric structures, Archean Abitibi greenstone belt: evidence on source reservoirs from strontium and carbon isotope tracers; Contrib. Mineral. Petrol., vol. 97, p. 156-168, 1987.

The Archean Lac du Bonnet batholith, Manitoba: Igneous history, metamorphic effects and fluid overprinting; Geochimic. Cosmochim. Acta, vol. 51, p. 421-438, 1987.

183
GAGNON, J., BERGERON, M., GELINAS, P., INRS-Géoressources, Universite Laval (Géologie):
Étude biogéochimique d'un indice aurifère en forêt boréale québécoise, 1988-; thèse de doctorat (Gagnon).
Afin de déterminer les principaux facteurs qui influencent les teneurs en or présentes dans divers types de vegetation nordique, un échantillonnage systématique de la roche du sol de la végétation d'un indice aurifère du Nouveau-Québec a été realisé. Les anlayses chimiques sont présentement en cours.

184
GIGUÈRE, C., PERRAULT, G., BELAND, J., École Polytechnique (Génie minéral):
Structure et géochimie du gîte d'or Sigma-2, canton Louvicourt, N.O., Québec, 1986-88; M.Sc.A. (Giguere).
Le gîte Sigma est constitué par des veines de quartz aurifère subhorizontales. La fracturation locale suggère une pression dominant NS. L'arsénopyrite est importante en bordure des veines aurifères.

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GOODFELLOW, W.D., Geol. Surv. Can.:
Regional geochemistry, Yukon Territory, 1977-.
See:
Anoxic stratified oceans as a source of sulphur in sediment-hosted stratiform Zn-Pb deposits (Selwyn Basin, Yukon, Canada); Chemical Geol., vol. 65, p. 359-382, 1987.

Geology, geochemistry and geochronology of subvolcanic intrusions associated with gold deposits at Freegold Mountain, Dawson Ranges, Yukon; Geol. Surv. Can., Paper 88-1E, p. 137-151, 1988.

186
HALDEN, N.M., ZALESKI, E., Univ. Manitoba (Geological Sciences):
Geochemistry and mineralogy of the Linda hydrothermal system, Snow Lake, Manitoba, 1986-89; Ph.D. thesis (Zaleski).
See:
Reconstruction of synvolcanic alteration associated with the Linda massive sulphide deposit, Snow Lake, Manitoba; Geol. Surv. Can., Paper 88-1C, p. 73-81, 1988.

The Linda deposit was subjected to amphibolite-facies metamorphism and altered rocks are characterised by assemblages of metamorphic minerals. The parageneses reflects variations in bulk-rock compositions, established during synvolcanic hydrothermal alteration.

187
HAMILTON, S., MICHEL, F.A., Carleton Univ. (Earth Sciences):
Evaluation of mineral resource potential in the proposed extension areas of Nahanni National Park using groundwater geochemistry, 1986-; M.Sc. thesis (Hamilton).
See:
Groundwater geochemistry, South Nahanni resource assessment area, District of Mackenzie; Geol. Surv. Can., Paper 88-1E, p. 127-136, 1988.

188
HARNOIS, L., MOORE, J.M., Carleton Univ. (Ottawa-Carleton Geoscience Centre):
Geochemistry of the Ore Chimney Formation and associated gold deposits, Grenville Province, southeastern Ontario, 1982-88; Ph.D. thesis (Harnois).
See:
Geochemistry and origin of the Ore Chimney Formation, a transported paleoregolith in the Grenville Province of southeastern Ontario, Canada; Chemical Geol., 1988.

Polymetallic, Au-bearing quartz-carbonate vein systems were deposited from metamorphic fluids, near at low amphibolite facies conditions, on and near a regional

unconformity between the Flinton Group and underlying mafic volcanic rocks of the Grenville Supergroup.

189
HORNBROOK, E.H.W., Geol. Surv. Can.:
National geochemical reconnaissance, 1975-.

190
KELLY, D., PERRAULT, G., École Polytechnique (Génie minéral):
Géochimie, pétrologie et minéralogie des gîtes d'or Astoria, district de Rouyn-Noranda, Québec, 1987-88; M.Sc.A. (Kelly).
Définir la teneur primaire en or des roches encaissantes avec objet d'identifier une roche source de l'or s'il y a lieu. Etudier la dispersion de l'or autour des gîtes connus avec objet d'utiliser cette information pour la recherche de nouveaux. Les mesures minéralogiques et pétrologiques ont pour objet de nous faire comprendre le tout.

191
LEVINSON, A.A., Univ. Calgary (Geology and Geophysics):
Exploration geochemistry, 1972-.
See:
Practical problems in exploration geochemistry, 1987.

192
MARCOTTE, D., FOX, J., IREM-MERI:
Analyses statistiques des données géochimiques des sédiments lacustres, 1987-88.
Produire une carte du contenu aurifère des sédiments de lacs dérivés à partir de relations statistiques établies dans des régions clefs.

193
MAURICE, Y.T., Geol.Surv. Can.:
Geochemical exploration technology in ultrabasic complex complexes, 1983-.

194
McTAGGART, K.C., KNIGHT, J., Univ. British Columbia (Geological Sciences):
Composition of placer and lode gold, 1980-; M.Sc. thesis (Knight).
Microprobe study of trace elements in lode and placer gold, British Columbia mainly, but also Yukon and elsewhere.

195
NICHOL, I., LAVIN, O., GRANT, A., Queen's Univ. (Geological Sciences):
The optimization of geochemical exploration techniques for gold. Deposits in areas covered by glacial till, 1986-89.
To develop a more effective system of geochemical exploration for gold deposits by examining the distribution of gold in glacial till associated with a variety of gold deposit types.

196
NICHOL, I., LAVIN, O., NUCHANONG, T., Queen's Univ. (Geological Sciences):
Geochemical orientation survey over gold-copper mineralization at Phu Tham Phra and Phu Thong Daeng, Thailand, 1986-90; Ph.D. thesis (Nuchanong).
To determine the optimum geochemical techniques for gold exploration in north-eastern Thailand.

197
NICHOL, I., SHAW, J., LAVIN, O., McCLENAGHAN, B., Queen's Univ. (Geological Sciences, Geography):
Quaternary geology and geochemical exploration in the Matheson area, Ontario, 1987-88; M.Sc. thesis (McClenaghan).
To establish the stratigraphic succession of the glacial overburden in the Matheson area and to develop geochemical exploration methodology appropriate to the area.

198
PERRAULT, G., SABOURIN, L., TRUDEL, P., École Polytechnique (Génie minéral):
Étude de la distribution de l'or dans le batholite de Flavrian, district de rouyn-Noranda, 1985-87.
Voir:
La teneur en or du batholite de Flavrian, Rouyn-Noranda, Québec; Can. Mineral., vol. 25, p. 545-554, 1987.
La trondhjemite, principale roche intrusive du batholite de Flavrian a une teneur Au lognormale: médiane à 0.7 ppb, P_{16} à 0.2 et P_{84} à 2.5 ppb Au. Le batholite de Flavrian ne saurait constituer une roche source pour l'or des gîtes avoisinants.

199
PRONK, A.G., New Brunswick Natural Res., Energy (Mineral Res. Div.):
Regolith mapping and till geochemistry, 1985-89.
Map areas 21 O/15 (Atholville) and parts of 21 B/1 (Oak Bay) and 21 B/2 (Escuminac) were mapped and sampled for geochemical analyses for gold, etc.

200
ROGERS, P.J., MILLS, R.F., LOMBARD, P.A., Nova Scotia Dept. Mines and Energy:
Geochemical atlas project for Nova-Scotia – follow-up geochemistry, 1984-.
All field work has been completed (3 field seasons); some analytical work completed (rest in progress); statistical analysis of data in progress.

201
ROGERS, P.J., MILLS, R.F., LOMBARD, P.A., Nova Scotia Dept. Mines and Energy:
Geochemical atlas project for Nova Scotia, 1986-.
All field work has been completed (2 field seasons); half of the analytical work completed (first field season); second half of analytical work has begun; and statistical appplication to data from first half of data, 80% finished (cannot be finished until dataset complete).

202
SNOWDON, L.R., Geol. Surv. Can.:
Clay and clay minerals investigation, 1968-.

203
STEELE, K.G., BAKER, C.L., Ontario Geol. Surv.:
Reconnaissance till sampling program, Matheson-Lake Abitibi area, Ontario, 1984-89.
See:
Gold grains in sonic drill core samples (1987) from the Lake Abitibi-Matheson area, District of Cochrane; Ontario Geol. Surv. ,Map P.3097, 1987.
Reconnaissance till sampling program, Matheson-Lake Abitibi area, District of Cochrane; Ontario Geol. Surv., M.P. 137, p. 415-419, 1987.
The fourth year of a reconnaissance till sampling project, which is being carried out in cooperation with the Engineering and Terrain Geology Section of the Ontario Geological Survey, and forms part of the Black River-Matheson (BRIM) Program, continued through the winter of 1987/88.
The sampling, largely completed by deep rotasonic drilling, is of particular value in the area due to the paucity of outcrop. Both regional Quaternary (glacial) stratigraphy and a till geochemistry data base are being established from the results. Thus far, the presence of two glacial packages under the Matheson till have been indicated from the detailed stratigraphic record preserved in unconsolidated cores recovered by drilling. Clastic secitons of the core are subjected to heavy mineral separation so that independent gold grains may be counted and examined for their size and shape to help in determining their providence.

204
VALIQUETTE, G., GAUDARD, F., École Polytechnique (Génie minéral):
Étude de la zonalité minéralogique et géochimique des skarns du dôme de Lemieux en Gaspésie, Québec, 1987-89; M.Sc.A. (Gaudard).
Les forages profonds de la Soquem et de Noranda Exploration ont mis à jour de nouvelles zones de skarns dans la Formation de St-Léon sur le dôme de Lemieux. Ces zones de skarns feront l'objet d'une étude minéralogique pour déterminer des conditions physico-chimiques favorables à la précipitation des métaux. Cex résultats seront comparés à ceux des zones à minerai des mines Gaspé et du gîte de Sullipek.

205
WEBBER, G.R., BERNIER, M.A., ELSON, J.A., McGill Univ. (Geological Sciences):
Overburden geochemistry and possible relation to gold-bearing alluvial deposits, southwest Gaspesie, Québec, 1985-88; M.Sc. thesis (Bernier).

206
WELHAN, J., MILLAR, W., Memorial Univ. (Earth Sciences):
Groundwater studies in the area of Daniel's Harbour, Newfoundland, 1985-89; M.Sc. thesis (Millar).
Identification of groundwater flow regime and geochemical controls on Zn and trace element distributions in waters, for locating blind arc bodies through groundwater mapping.

207
WELHAN, J., Memorial Univ. (Earth Sciences):
Gases in fluids and rocks, 1985-.
See:
Methane and hydrogen in mid-ocean basalt glasses; analysis by vacuum crushing; Can. J. Earth Sci., vol. 25, p. 38-48, 1988.

Characteristics of Abiotic methane in rocks; Geol. Assoc. Can., Sp. Paper 33, p. 225-233, 1987.

GENERAL/GÉNÉRALITÉS

208
BALLANTYNE, S.B., Geol. Surv. Can.:
Applied geochemistry for the Cordillera, 1979-.

209
BARAGAR, W.R.A., Geol. Surv. Can.:
Stratigraphy and geochemistry of the volcanic rocks of the Circum-Ungava Belt, District of Keewatin, 1978-.

210
BOYLE, D.R., Geol. Surv. Can.:
Groundwater geochemistry in mineral and hydrocarbon exploration, 1983-.

211
BRAND, U., McALLISTER, J., BATES, N., Brock Univ. (Geological Sciences):
Diagenesis and biogeochemistry of fossil marine invertebrates, 1986-.
See:
Biogeochemistry of nautiloids and paleoenvironmental aspects of Buckhorn Seawater (Pennsylvanian), southern Oklahoma; Paleo-3, vol. 61, p. 255-264, 1987.

Diagenesis and pyritization of crinoid ossicles; Can. J. Earth Sci., vol. 24, p. 2486-2498, 1987.

212
CAMERON, E.M., Geol. Surv. Can.:
Isotopic geochemistry, Precambrian mineralized basins, District of Mackenzie and Ontario, 1980-.
See:
Archean gold: Relation to granulite formation and redox zoning in the crust; Geology, vol. 16, no. 2, p. 109-112, 1988.
Pyrite of distinctive isotopic composition from the Hemlo deposit: a potential tool to identify this type of gold mineralization in Archean terrain; J. Geochemical Exploration, vol. 28, p. 85-102, 1987.
Archean gold mineralization and oxidized hydrothermal fluids; Econ. Geol., vol. 82, p. 1177-1191, 1987.
Archean sulphur cycle: evidence from sulphate minerals and isotopically fractionated sulphides in Superior Province, Canada; Chemical Geol., vol. 65, p. 341-358, 1987.

213
COKER, W.B., Geol. Surv. Can.:
Geochemical methodologies in glaciated terrains, Manitoba and Ontario, 1986-.

214
CRANSTON, R., Geol. Surv. Can.:
Diagenesis and geochemical cycling, 1987-.

215
DAVENPORT, P.H., NOLAN, L.W., Newfoundland Dept. Mines and Energy:
The integration of geochemical data from different sample media for regional geochemical mapping, 1987.
Ways to integrate geochemical data from stream sediment and water from northernmost Labrador with lake sediment and water from southern Labrador are being developed. This type of inter-medium correlation of geochemical data is a prerequisite for the production of geochemical maps of large areas of the world.

216
DESJARDINS, M., BERTRAND, R., CHAGNON, A., INRS-Géoressources:
Étude statistique de la composition des argiles au MEB.
Voir:
Microanalyse de phengite au microscope électronique; Can. Mineral., vol. 25, p. 135-140, 1987.

Utilisation des méthodes statistiques pour différencier les argiles dans un contexte diagénétique.

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DYCK, W., Geol. Surv. Can.:
Disequilibrium in the uranium series, 1978-.

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EASTON, R.M., GRUNSKY, E.C., JENSEN, L.S., THURSTON, P.C., HOWE, J.M., Ontario Geol. Surv.:
Geochemical classification of Archean volcanic rocks, 1985-90.
See:
A multivariate investigation of the chemical variability of Archean volcanic rocks; Geol. Assoc. Can. – Mineral Assoc. Can., Program with abstracts, vol. 12, p. 50, 1987.

Geochemical classification of Archean volcanic rocks; Ontario Geol. Surv., Misc. Paper 137, p. 337-346, 1987.

To devise a geochemical classification scheme for Archean Volcanic Rocks based on the geochemistry of Archean volcanics. This scheme will take full advantage of modern statistical techniques, yet be easy to apply. Comparison of Archean and modern volcanic rocks will also be attempted. As part of this project, a compilation of Komatiite geochemistry was made (Komatiite Database, OCS OFR 5677).

219
ELLWOOD, D.J., Geol. Surv. Can.:
Automated geochemical cartographic development, 1975-.

220
FOWLER, A.D., JENSEN, L.S., Univ. Ottawa (Geology):
Trace element modelling of the crystallization history of the Kinojevis and Blake River Groups, Abitibi Greenstone Belt, Ontario, 1986-88.
See:
Variolites in Archean basalts: products of spherulitic crystallization; Can. Mineral., vol. 25, p. 275-289, 1987.

221
FYON, J.A., Ontario Geol. Surv.:
Evolution of Archean gold mineralization, 1987-.
Address role of late plutonism in forming gold mineralization.

222
GODWIN, C., GABITES, J., Univ. British Columbia (Geological Sciences):
Galena lead isotopes from Canadian Cordilleran deposits, 1985-.
Comprehensive d BASE III collection of galena lead isotope data in the Canadian Cordillera with specific comments on application to explorationists.

223
GOODFELLOW, W.D., Geol. Surv. Can.:
Geochemistry of mineral occurrences and their host rocks in the Northern Cordillera, 1979-.

224
GREENOUGH, J.D., FRYER, B.J., ROBINSON, P., Mount Allison Univ. (Geology):
Noble metal abundances in Reunion "hot-spot" basalts from ODP Leg 115 in the Indian Ocean, 1987-88.
To evaluate the behaviour of the Noble metals during igneous processes such as partial melting and fractional crystallization and during seafloor alteration processes. By comparing these rocks with Deccan Trap basalts it should also be possible to evaluate the effect of crustal assimilation on the PGE.

225
GRUNSKY, E.C., AGTERBERG, F.P., Ontario Geol. Surv., Geol. Surv. Can:
Multivariate and spatial analysis of geochemical data, 1985-88; Ph.D. thesis (Grunsky).
See:
The application of multivariate statistical techniques using microcomputers: recognition of alteration patterns associated with mineralization in volcanic rocks using lithogeochemistry; in United Nations Interregional Seminar on the Applications of Electronic Data Processing in Mineral Exploration and Development, Proc., 1987.

226
HALDEN, N.M., Univ. Manitoba (Geological Sciences):
Trace element geochemistry of mafic and ultramafic volcanic rocks at the Churchill-Superior boundary zone, Manitoba, 1986-88.
See:
Geochemistry of mafic volcanism at the Churchill-Superior boundary zone; Manitoba Energy and Mines, GS-28, 1987.

227
HALDEN, N.M., Univ. Manitoba (Geological Sciences):
Tectonic setting of granitic magmatism at the Churchill-Superior boundary zone, Manitoba, 1986-88.

To establish the geochemical nature and structural setting of anorogenic granitic magmatism at the Churchill-Superior boundary zone. Based upon work at Fox Lake, Manitoba.

228
HALDEN, N.M., Univ. Manitoba (Geological Sciences):
Geochemical investigation of granitic rocks in the Snow Lake-Flin Flon terrane, 1987-89.
See:
Geochemistry of granites in the Snow Lake-Flin Flon area; Manitoba Energy and Mines, GS-18, 1987.
To establish the geochemical characteristics of granites and granitoids related to known mineralization.

229
HALDEN, N.M., TIRSCHMANN, P., Univ. Manitoba (Geological Sciences):
Geochemical evolution of the Falcon Lake Igneous Complex, Manitoba, 1986-88; M.Sc. thesis (Tirschmann).
The complex is an intricately layered and zoned intrusion. Work is aimed at establishing the geochemical relationship between the various phases and to determine the influence of fractional crystallisation and crystal liquid segregation processes on the evolution of the complex.

230
HARRISON, Y., BERGERON, M., ROBERGE, P.C., INRS-Géoressources, Université Laval (Chimie):
Études des mécanismes de réaction des complexes aqueux d'or sur l'acide humique par spectrophotométrie des électrons ESCA et par microscopie électronique à balayage, 1986-88; thèse de maitrise (Harrison).
Voir:
Études des mécanismes de réaction des complex aqueux d'or sur l'acide humique par spectrophotométrie des électrons ESCA et par microscopie électronique à balayage (MEB); Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 53, 1987.

Cette étude traite des facteurs qui contrôlent la mise en solution de l'or dans les eaux de surface. Plus spécifiquement, nous avons examiné les interactions entre différents complexes d'or soluble en milieu aqueux et plusieurs complexants organiques. Les résultats soulignent que les groupes carboxiles sont responsables de la complexation de l'or par les acides humiques et fulviques.

231
HAWTHORNE, F.C., HALDEN, N.M., LEROUX, M., Univ. Manitoba (Geological Sciences):
Mineralogical and geochemical investigations of the cordierite anthophyllite rocks at Star Lake near Sherridon, Manitoba, 1986-88; M.Sc. thesis (Leroux).
To establish the mineral chemistry of the cordierite anthophyllite assemblages and to determine the nature of the protolith prior to alteration and metamorphism.

232
HERZIG, P.M., BECKER, U., STOFFERS, P., BACKER, H., BLUM, N., Univ. Toronto (Geology), Rwth Aachen Univ. (FRG), Kiel Univ. (FRG), Preussag AG (FRG), Uarlsrnhe Univ. (FRG):
Hydrothermal silica formations in the Galapagos spreading center, Pacific Ocean, 1987-.
Study of amorphous silica chimneys discovered in 1985. Reconstruction of formation conditions using oxygen isotope, mineralogical and geochemical data.

233
JACKSON, S.E., Memorial Univ. (Earth Sciences):
Inductively coupled plasma/mass spectrometry.

234
JONES, L.M., MOSSMAN, D.J., Mount Allison Univ. (Geology), CONOCO Oil Co., Okaloma, U.S.A.
The isotopic composition of strontium and the source of early Jurassic North Mountain basalts, Nova Scotia, Canada, 1986-88.
To assess the Sr isotopic signatures of major flow units of North Mountain basalts, and to evaluate the geological processes that have participated in the evolution of these basalts.

235
KAWAHATA, H., HERZIG, P.M., SCOTT, S.D., Univ. Toronto (Geology), Geol. Survey Japan, Rwth Aachen Univ. (FRG):
Geochemistry of sub-seafloor alteration of basalt: DSDP/ODP Hole 504B and Troodos ophiolite, 1985-87.
Hydrothermal alteration of 6 MA YRS. old oceanic crust: pillow lavas and sheeted dikes.

236
KING, R.H., Univ. Western Ontario (Geography):
The identification of archaeological pottery from southwestern Cyprus using instrument neutron activation analysis, 1983-90.
See:
Western Cyprus: The palaeoenvironment; Studies in Mediterranean Archaeology, vol. LXXVII, p. 7-17, 1987.

An investigation of the geographical origins of pottery from southwestern Cyprus and the source of materials used in their manufacture; ibid., p. 215-226, 1987.

Provenance of clay material used in the manufacture of archaeological pottery from Cyprus; J. Applied Clay Sci., vol. 2, no. 3, p. 199-213, 1987.

An initial sample set of 129 pottery samples of different ages and from a number of archaeological sites in southwestern Cyprus has been expanded to a total of 275 samples, including a number of sample sets of specific pottery type, design and known origin. A multivariate statistical analysis of 33 macro, trace and rare earth elements determined by instrument neutron activation analysis for each of the samples is presently underway with a comparison being made between samples of known type and origin and which constitute reference sets and a group of samples of unknown type and origin. In addition, the pottery samples are being ompositionally compared with a set of clay samples which may have served as raw materials in the manufacture of the pottery. The major object of this project is the construction of a series of compositional typologies for the pottery samples and ceramic raw materials in southwestern Cyprus which could be used to identify ancient pottery manufacturing centres and trade patterns.

237
KYSER, T.K., CALDWELL, W.G.E., WHITTAKER, S.J., CADRIN, A.J., JELLICOE, B.L., Univ. Saskatchewan (Geological Sciences):
Geological studies in the Cretaceous System of the Western Interior Basin, 1984-; Ph.D. thesis (Whittaker), M.Sc. theses (Cadrin, Jellicoe).
See:
Paleoenvironmental geochemistry of the Claggett marine cyclothem in south-central Saskatchewan; Can. J., Earth Sci., vol. 24, p. 967-984, 1987.

Current research is focussed on obtaining and interpreting geochemical evidence of palaeoclimatic and paleooceanographic conditions prevailing in the northern sector of the Cretaceous Western Interior seaway and for developing a chemostratigraphy for the Upper Cretaceous section in the eastern Interior Plains of Canada.

238
KYSER, T.K., CADRIN, T., JELLICOE, B.L., CHIPLEY, D., REES, M., KOTZER, T., WHITTAKER, S.J., WILSON, M., Univ. Saskatchewan (Geological Sciences):
Fluid history and evolution of the Athabasca basin (Proterozoic) and the Elk Point basin (Paleozoic), 1987-95; M.Sc. theses (Cadrin, Jellicoe, Chipley, Rees, Kotzer), Ph.D. theses (Whittaker, Wilson).
The effects of diagensis and tectonic evolution on the sediments in two basins are traced using stable and radiogenic isotope systematics. Within the Proterozoic Athabasca basin, in which occur hydrothermal Pt and the world's major unconformity-type uranium deposits, fluid events can be correlated throughout the entire basin. Isotopic compositions of sediments in the Paleozoic Elk Point basin reveal a complex fluid history and variable source terranes for this basin.

239
LIGHTFOOT, P.C., Ontario Geol. Surv.:
Geochemistry of continental flood basalts, with special reference to the Nipissing diabase, 1987-88.
See:
Petrologic, chemical, isotopic, and economic-potential studies of the Nipissing Diabase; Ontario Geol. Surv., Misc. Paper 136, p. 4-26, 1987.

Geochemical variations within Nipissing intrusions suggest that assimilation of Huronian sediments by a uniform tholeiitic parent magma is partially coupled to the fractional crystallization of the magma, where

the latent heat of crystallization is responsible for melting of sediments in the roof zones of the intrusions. It is suggested that partial melts of the crust pond at the roof of the intrusion, and are only assimilated into the magma after the break-down of a double-diffusion interface between the basic and aplitic magmas.

240
LUDDEN, J.N., FRANCIS, D., SKULSKI, T., CHARLAND, A., Université de Montréal (Géologie), McGill Univ. (Geological Sciences):
Cenozoic evolution of volcanic centers in southern Yukon, northern and central British Columbia, 1984-; Ph.D. theses (Skulski, Charland).
See:
Geochemical variation in primary alkaline magmas associated with the Alligator Lake volcanic complex, Yukon, Canada; Cont. Min. Pet., 1987.

Geochemical studies pertaining to the petrogenesis of volcanic rocks form Cenozoic to Recent centers: 1) Fort Selkirk, Yukon, 2) Alligator Lake, Yukon, 3) Mt. Edziza, north-central British Columbia, 4) St-Clare volcanics, Yukon, and 5) Anahim volcanics, British Columbia.

241
LUDDEN, J.N., PICARD, C., GAONAC'H, H., Université de Montréal (Géologie):
Nd. isotope geochemistry of a Proterozoic alkaline ocean island complex, 1987-89; M.Sc. thesis (Gaonac'H).
Characterisation of the mantle geochemistry in the Proterozoic.

242
MARMONT, S., TROOP, G., Ontario Geol. Surv.:
Alteration of gold deposits in the Abitibi belt, Ontario, 1985-89.

243
MAURICE, Y.T., Geol. Surv. Can.:
Heavy mineral studies, Gaspé, Québec, 1984-.

244
MOSSMAN, D.J., GODDARD, C.E., Mount Allison Univ. (Geology):
Geochemical evaluation of paleosols at the Huronian Archean unconformity, Elliot Lake area, Ontario, 1986-88.
To elucidate the geological processes involved in generation of Proterozoic paleosols developed on greenstones and on granite bedrock, and to assess metallogenic implications particularly with respect to the geology or uranium and gold deposits.

245
PINTSON, H., LUDDEN, J.N., Université de Montréal (Géologie):
Late Archaean granitoid genesis in the Superior Province of Canada, 1986-; thèse de doctorat (Pintson).
Evaluation using trace elements and isotopic traces of the origins of late Archaean granitoids from the Abitibi belt, in particular, and on a more general basis the Superior Province.

246
RISK, M., BOURGOIN, B., McMaster Univ. (Geology):
Heavy metal levels in bivalve shells as indicators of environmental contamination, 1982-87; Ph.D. thesis (Bourgoin).

247
RISK, M., LeBLANC, C., McMaster Univ. (Geology):
Stable isotopes as measures of organic matter input to arctic, temperate and tropical ecosystems, 1982-; Ph.D. thesis (LeBlanc).

248
SKIPPEN, G.B., DIAMOND, L., MARSHALL, D., GAREAU, S., FORD, F., BELL, M., Carleton Univ. (Earth Sciences):
Fluids in the crust, 1986-; Ph.D. thesis (Gareau), M.Sc. theses (Ford, Bell).
See:
F-OH substitution in neutral tremolite, talc, phlogopite; Contrib. Mineral Petrol., vol. 97, p. 305-312, 1987.

The influence of NaCl and KClm phase relations in metamorphic carbonite rocks; Am. J. Sci., vol. 286, p. 81-104, 1987.

Field mapping, fluid inclusion studies, and hydrothermal laboratory research are used to study material transfer and rock-fluid interaction. Metamorphic rocks as well as gold and silver mineralisation are subjects under investigation at present.

249
TAYLOR, B.E., Geol. Surv. Can.:
Light stable isotope geochemistry of rock and ore-forming processes, 1985-.

250
THORPE, R.I., Geol. Surv. Can.:
Lead isotopic studies on genesis of ore deposits, 1978-.
See:
Lead isotope data; Instit., Lake Superior Geol., Guidebook 33rd Ann. meeting, p. 46-55, 1987.

251
TREMBLAY, A., ST-JULIEN, P., BERGERON, M., INRS-Georessources, Université Laval (Géologie):
Études géochimiques de suites volcaniques de la Formation d'Ascot (Québec), 1985-89; thèse de doctorat (Tremblay).
See:
Tectonic collage of distinctive volcanic suite in the Ascot Formation: Geochemical evidences; Geol. Assoc. Can. - Mineral Assoc. Can., Program with abstracts, vol. 13, p. A126, 1988.

Les travaux de terrain suggèrent que la distribution actuelle de ces roches est le résultat d'un collage tectonique d'assemblages lithologiques différents séparés par des sédiments pélitiques de type < < mélange > >
Des études sur la distribution de terres rares dans ces roches sont actuellement en cours afin de déterminer si les patrons obtenus seront consistants avec l'interprétation découlant des données de terrain.

252
TURNER, R., STEA, R.R., Nova Scotia Dept. Mines and Energy:
Surficial mapping and till geochemistry of northern Mainland Nova Scotia, 1984-89.
Open File geochemical map sheets 10 and 11 have been released and sheets 12 and 13 are at the drafting stage. One major publication is in progress. Updates and some results published in Department of Mines Report of Activities.

253
VALIQUETTE, G., AMIREAULT, S., École Polytechnique (Génie minéral):
Caractérisation géochimique des granitoïdes dévoniens en regard de leur potentiel minéral en Gaspésie, Québec, 1987-89.
Les gîtes aurifères de Murdochville et Sullipek sont associés à des plutons de granitoïde. Nous avons échantillonné et analysé les plutons minéralisés des monts Copper et Porphyre à Murdochville et ceux des monts Vallières-de-St-Réal, Hog's Back, Brown et Chauve dans le centre nord de la Gaspésie pour évaluer le potentiel métallogénique des derniers plutons en regard des signatures géochimiques comparées.

254
VALIQUETTE, G., BELLEHUMEUR, C., MARCOTTE, D., École Polytechnique (Génie minéral):
Lithogéochimie des calcaires supérieurs de Gaspé, Québec, 1985-87.
Voir:
Lithogéochimie des calcaires supérieurs de Gaspé; MERQ, MB-86-45, 1986.

Caractériser chimiquement les formations reliées à la zone minéralisée du gisement de cuivre porphyrique de Gaspé Copper. Les horizons favorables de la Formation de Shiphead ont été analysés entre Cap Gaspé et Causapscal et une étude géomathématique permettra de définir des cibles potentielles pour l'exploration.

255
WESTGATE, J., PREECE, S., Univ. Toronto (Geology):
Geochemistry of distal tephra beds in the Pleistocene Gold Hill Loess, Fairbanks, Alaska, 1988-90; M.Sc. thesis (Preece):
All tephra beds in the Pleistocene Gold Hill loess of central Alaska must relate to large-magnitude eruptions from volcanoes in the Aleutians or Wrangell Mountains. Their petrographic and geochemical characterization will provide criteria for identification and hence correlation across Alaska and the Yukon Territory.

256
ANDREW, A., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
Vancouver Island - LITHOPROBE Pb-Sr-Nd isotopes, petrochemistry, 1977-.
Isotopic and chemical characterization of all the different magmatic suites of Vancouver Island. Pb and Sr largely completed. Nd in progress under a LITHOPROBE grant.

257
ANDREW, A., ARMSTRONG, R.L., GODWIN, C., Univ. British Columbia (Geological Sciences):
Nd-Sm and Pb-Pb character of major components of Vancouver Island, British Columbia, 1987-89.
Further characterization of major rock suites on Vancouver Island within LITHOPROBE framework.

258
ARCHIBALD, D.A., FARRAR, E., Queen's Univ. (Geological Sciences):
Tectonothermal history of the southern Kootenay Arc and Purcell Anticlinorium, southeastern British Columbia, 1976-.
$^{40}Ar/^{39}Ar$ and fission track studies of mid-Cretaceous plutons (e.g. White Creek and Bugaboo batholiths) are in progress. In addition, the Precambrian thermal history of rocks in the Purcell Anticlinorium is being investigated in an $^{40}Ar/^{39}Ar$ study of the Hellroaring Creek area and Moyie (and younger) mafic intrusions.

259
ARCHIBALD, D.A.,FARRAR, E., Queen's Univ. (Geological Sciences):
An isotopic study of granitoid rocks associated with W-Skarn, Selwyn Mountains, Yukon and Northwest Territories, 1985-.
Most micas and amphiboles yield K-Ar dates of ~95 Ma, however, a few exceptions have been found. In this preliminary investigation, coexisting K-feldspar and apatite will be used ($^{40}Ar/^{39}Ar$ and fission track) to study the low temperature thermal history of these plutons.

260
ARCHIBALD, D.A., FARRAR, E., CARMICHAEL,D.M., JOURNEAY, J.M., Queen's Univ. (Geological Sciences):
An isotopic study of the west flank of Frenchmans Cap dome, southeastern British Columbia, 1983-.
Whereas all K-Ar mica dates fall betwen 45 and 55 Ma, amphiboles yield conventional dates as great as 120 Ma. $^{40}Ar/^{39}Ar$ experiments reveal a component of excess Ar and a complex, pre-Eocene, thermal history.

261
ARCHIBALD, D.A., FARRAR, E., CLARK, A.H., SEAL, R., Queen's Univ. (Geological Sciences), Univ. Michigan (Geological Sciences):
A K-Ar and $^{40}Ar/^{39}Ar$ study of the Lake George antimony deposit, southern New Brunswick, 1983-88; M.Sc. thesis (Seal).
K-Ar dates suggest a Late Silurian age for mineralization. $^{40}Ar/^{39}Ar$ step-heating experiments are in progress.

262
ARCHIBALD, D.A., FARRAR, E., HANES, J.A., Queen's Univ. (Geological Sciences):
An $^{40}Ar/^{39}Ar$ study of the Kapuskasing structural zone, northern Ontario, 1979-.
An isotopic study of the sheared eastern margin of the KSZ is in progress. A regional-scale, isotopic transect of the KSZ and neighbouring regions has been initiated as part of LITHOPROBE.

263
ARCHIBALD, D.A., FARRAR, E., HELMSTAEDT, H., HALL, D., SCHULZE, D., Queen's Univ. (Geological Sciences):
An $^{40}Ar/^{39}Ar$ investigation of the age of kimberlites and the thermal history of their xenoliths, southeastern British Columbia, 1985-.

264
ARCHIBALD, D.A., FARRAR, E., IRVING, E., WOODSWORTH, G.J., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
$^{40}Ar/^{39}Ar$ thermal and paleomagnetic studies of the Smith Island Gabbro, British Columbia, 1985-87.
This pluton has been sampled extensively for paleomagnetic studies. $^{40}Ar/^{39}Ar$ step-heating experiment on amphibole should yield the age of emplacement and, the time and magnitude of any later thermal disturbance.

265
ARCHIBALD, D.A., FARRAR, E., MOUNTJOY, E., Queen's Univ. (Geological Sciences), McGill Univ. (Geology):
A K-Ar and $^{40}Ar/^{39}Ar$ study of metamorphic rocks near the Purcell thrust, southeastern British Columbia, 1983-.
Biotite-muscovite pairs show a marked reversal of the normal discordance of K-Ar dates. $^{40}Ar/^{39}Ar$ step-heating experiments will be done in order to assess the tectonothermal history of these samples.

266
ARCHIBALD, D.A., TAYLOR, R., FARRAR, E., Queen's Univ. (Geological Sciences), Carleton Univ. (Geology):
$^{40}Ar/^{39}Ar$ study of the Mt. Pleasant area, New Brunswick, 1985-.
The results of step-heating experiments suggest that mineralization occurred in Late Devonian time and that the area experienced a low-temperature re-heating event in Jurassic time.

267
ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences);
Southern Cordilleran Transect geochron, radiogenic isotopes, and tectonics, 1975-.
A field guide and geochron-tectonics syntheses are being prepared for a transect centered about 49°30'N.

268
ARMSTRONG, R.L., VAN DER HEYDEN, P., Univ. British Columbia (Geological Sciences):
Southern Coast Plutonic Complex - ages and isotopic composition, 1975-.
Special projects and theses will continue to focus on the southern portion of the Coast Mountains, especially sites near the LITHOPROBE transect.

269
CHARUSIRI, P., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
Geochronological and metallogenetic aspects of scheelite skarn mineralization, Thailand, 1985-; Ph.D. thesis (Charusiri).

270
DAVIS, D.W., THURSTON, P.C., Royal Ontario Museum, Ontario Geol. Surv.:
Geochronology of platform sequences, northwestern Ontario, 1987-90.
U/Pb zircon geochronology of 10 platform sequences in Sachigo Subprovince and Wabigoon Diapiric Axis.

271
DOIG, R., McGill Univ. (Geological Sciences):
History of the Cape Smith fold belt and adjacent gneissic terrain, Ungava Peninsula, Québec, 1982-87.
See:
Rb-Sr geochronology and metamorphic history of Proterozoic to early Archean rocks north of the Cape Smith fold belt, Québec; Can. J. Earth Sci., vol. 24, p. 813-825, 1987.

The Proterozoic Cape Smith volcanic fold belt is bounded to the north by Archean gneisses, reworked during the deformation of the Cape Smith belt. An exotic terrain north of the Archean gneisses at Sugluk yields ages of 3.2 to possibly 3.8 Ga. A continental collision in the Proterozoic between this early Archean continent and a 2.9 Ga continental margin containing the Proterozoic volcanic belt may have produced the structural and age relationships we observe now.

272
DOIG, R., McGill Univ. (Geological Sciences):
The metamorphic history of the Grenville Province of western Québec, 1987-89.
The metamorphic history (timing) of the Grenville Province is more frequently assumed than demonstrated. Several hundred samples have been collected along the Montreal-Val d'Or and Lac St. Jean-Chibougama sections to outline the extent and intensity of Grenvillian and earlier metamorphic events. The methods to be used (some imperfect) are: Rb-Sr mineral and "thin-slab" isochrons, Sm-Nd garnet-whole rock pairs, and U-Pb dates of sphene, monazite, and metamorphic zircons.

273
DUNNING, G.R., SWINDEN, H.S., COLMAN-SADD, S.P., KEAN, B.F., O'BRIEN, S.J., O'BRIEN, B.H., JENNER, G.A., PEDERSEN, R.B., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sciences), Univ. Bergen:
Geochemistry and geochronology of Appalachian-Caledonian ophiolites U/Pb geochronology in the Appalachian-Caledonian orogen, 1980-

See:
Geology of the Annieopsquotch Complex, southwest Newfoundland; Can. J. Earth Sci., vol. 24, p. 1162-1174, 1987.

Geochronology of the Buchans, Roberts Arm and Victoria Lake Groups, and Mansfield Cove Complex, Newfoundland; ibid., p. 1175-1184, 1987.

U/Pb ages of ophiolites and arc-related plutons of the Norwegian Caledonides: implications for the development of Iapetus; Contrib. Mineralogy and Petrology, vol. 98, p. 13-23, 1988.

To establish an accurate and precise geochronologic data base for major units within the Appalachian-Caledonian Orogen. This will permit the age resolution of tectonic events in the development of the mountain belt. Ages of ophiolites as well as arc-related plutonic and volcanic rocks from the Dunnage Zone are enabling us to decypher the magmatic-tectonic development of the Iapetus Ocean.

274
EASTON, R.M., Ontario Geol. Surv.:
Isotopic age compilation map of Ontario, 1983-.
Initial compilation has been completed and published. Compilation work is continuing, and updated maps and database will be released in 1988-1989.

275
FARRAR, E., ARCHIBALD, D.A., CLARK, A.H., Queen's Univ. (Geological Sciences):
The timing of tungsten and tin mineralization, Korea, 1979-88.
An $^{40}Ar/^{39}Ar$ and K-Ar study of the Sang Dong and Okbang camps is in progress. K-Ar dates range from 80 to 1850 Ma and $^{40}Ar/^{39}Ar$ age spectra suggest complex thermal histories for these areas.

276
FINN, G.C., Brock Univ. (Geological Sciences):
Geochemical and isotopic evolution of a portion of the Hopedale Block, Labrador: Evidence for Late-Middle Archaean reworking, 1982-.
See:
LILE and REE geochemistry of the Archaean Maggo gneiss at Hopedale, Labrador: Implications for crustal reworking; Geol. Assoc. Can. – Mineral Assoc. Can., Program with abstracts, vol. 12, p. 42, 1987.

277
HANES, J.A., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of diabase dyke swarms in the Wawa-Kapuskasing-Abitibi transect of the Canadian Shield, 1984-.

278
HANES, J.A., CLARK, S.J., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
Uplift and cooling history of the Elzevir Pluton in the Grenville Province by $^{40}Ar/^{39}Ar$ thermochronometry, 1983-; M.Sc. thesis (Clark).

279
HANES, J.A., HODGSON, C.J., WONG, L., ARCHIBALD, D.A., Queen's Univ. (Geological Sciences):
$^{40}Ar/^{39}Ar$ geochronology of gold mineralization in Sigma Mine, Quebec, in the Archean Abitibi Greenstone Belt, 1984-; M.Sc. thesis (Wong).

280
HEINRICH, S., FARRAR, E., CLARK, A.H., Queen's Univ. (Geological Sciences):
A geochronological study of the tectono-thermal evolution of the Zongo belt, Bolivian Andes, 1984-87; M.Sc. thesis (Heinrich).
See:
Zongo-San Gaban Zone-Eocene foreland boundary of the Central Andean Orogen, northwest Bolivia and southeast Peru; Geology, vol. 16, p. 55-58, 1988.

Delimitation of a cryptic Eocene tectono-thermal domain in the Eastern Cordillera of the Bolivian Andes through K-Ar dating and $^{40}Ar/^{39}Ar$ step-heating; Geol. Soc. London J., vol. 144, p. 243-255, 1987.

281
HUNTLEY, D.J., GODFREY-SMITH, D.I., Simon Fraser Univ. (Physics):
Optical dating of sediments, 1984-; Ph.D. thesis (Godfrey-Smith).

282
HUNTLEY, D.J., GODFREY-SMITH, D.I., THEWALT, M.L.W., BERGER, G.W., Simon Fraser Univ. (Physics):
Thermoluminescence spectra of minerals relevant to TL and optical dating, 1986-88.

283
HUNTLEY, D.J., KIRKEY, J.J., HUTTON, J.T., PRESCOTT, J.R., Simon Fraser Univ. (Physics); Univ. Adelaide (Physics):
Thermoluminescence dating of a sequence of stranded beach dunes in southeast South Australia, 1982-; M.Sc. thesis (Kirkey).

284
KEPPIE, J.D., DALLMEYER, R.D., KROGH, T.E., CORMIER, R.F., Nova Scotia Dept. Mines and Energy:
Metallotectonic map of Nova Scotia, 1984-89.
See:
Polyphase late Paleozoic tectonothermal evolution of the southwestern Meguma Terrane, Nova Scotia; evidence from $^{40}Ar/^{39}Ar$ mineral ages; Can. J. Earth Sci., vol. 24, p. 1242-54, 1987.

Dating transcurrent Terrane accretion: an example from the Meguma and Avalon composite terranes in the northern Appalachians; Tectonics, vol. 6, p. 831-847, 1987.

285
MARMONT, S., CORFU, F., Ontario Geol. Surv., Royal Ontario Museum:
Geochronology of gold mineralization in the Abitibi belt, Ontario, 1983-89.

286
MARTIGNOLE, J., MACHADO, N., Université de Montréal (Géologie) Royal Ontario Museum (Mineralogy):
Mise en place et déformation de l'anorthosite de Rivière Pentecote, Quebec, 1987-89.
See:
First U-Pb age for magmatic zircon in anorthosites: the case of the Pentecote intrusion in Quebec; Geol. Assoc. Can. – Mineral Assoc. Can., Program with abstracts, vol. 13, p. A76, 1988.

U. Th. dating in progress in underformed anorthosite (zircon) and in gneissic anorthosite (sphene).

287
MURPHY, D., Univ. British Columbia (Geological Sciences):
Geochronology of pre-kinematic granitoid intrusives, Cariboo terrane, east-central British Columbia and Cassiar terrane, southern Yukon, 1986-.
To determine (U/Pb-zircons) the age of intrusion of pre-kinematic (pre-Mesozoic?) granitoid intrusions into rocks which can be tied directly to North America. These data will be useful in evaluating the relationship of N. American terranes with the innermost of the "suspect" terranes, Kootenay and Yukon-tanana terranes.

288
MURPHY, D., Univ. British Columbia (Geological Sciences):
Geochronology of post-kinematic granitoid bodies, southern Yukon, 1987-.
To refine the ages of crystallization of several of the large post-kinematic intrusives in southern Yukon using U/Pb geochronology.

289
PELTONEN, P., SCOTT, S.D., Univ. Toronto (Geology), Turku University, Finland (Geology):
C-14 analysis of seafloor hydrothermal products, 1987-88.
C-14 is being analyzed for samples from the Guaymas Basin vent field, Gulf of California, using the isotrace tandem accelerator mass spectrometer facility at University of Toronto in an attempt to date the hydrothermal products.

290
SCHROETER, T., GODWIN, C., GABITES, J., DIAKOW, L., British Columbia Ministry Energy, Mines, Petrol. Res., Univ. British Columbia (Geological Sciences):
Mineral deposits of the Toodoggone River area, British Columbia, 1974-.

291
SIMONETTI, A., DOIG, R., McGill Univ. (Geological Sciences):
Ages and isotopic characterization of granitic rocks of the southern Quebec Appalachians, 1986-88; M.Sc. thesis (Simonetti).
The superficially homogenous granodioritic plutons of the southern Quebec Appalachians show much heterogeneity in terms of Sr-whole rock and Pb-Feldspar isotopes. U-Pb mineral dating (sphene, monazite and zircon) in progress will achieve the initial dating objective, as well as help elucidate the anomalous Sr and Pb-Pb results.

292
SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Carbon isotope study, Erickson Mines, Cassiar district, British Columbia, 1988.
Aimed at investigating the potential of carbon isotopes to provide insight to the origin of the abundant carbon occurring in some of the gold quartz veins in the Cassiar district.

293
TUREK, A., KELLER, R., Univ. Windsor (Geology):
Zircon ages for the Mishubishu greenstone belt, Ontario, 1987-; M.Sc. thesis (Keller).

294
TUREK, A., KELLER, R., WEBER, W., VAN SCHMUS, W.R., Univ. Windsor (Geology):
U-Pb geochronology Rice Lake area, Manitoba, 1983-.
To establish the absolute chronology and correlate the volcanic rocks in this greenstone belt.

295
VAN BREEMEN, O., Geol. Surv. Can.:
Isotopic age determinations and radiogenic trace element studies of rocks and minerals, 1983-.

296
VAN DER HEYDEN, P., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
U-Pb and K-Ar geochronometry of the Coast Plutonic Complex between 53°N and 55°N, British Columbia, 1984-88; Ph.D. thesis (van der Heyden).
Fieldwork and laboratory work on ~60 U-Pb zircon samples and ~30 K-Ar mineral separates completed (Feb. '88). Writing of papers and thesis to be completed by May or June 1988.

297
WESTGATE, J., KEMP, K.M., Univ. Toronto (Geology):
Geochronology and geochemistry of tephra beds in the Upper Cretaceous Kanguk Formation, Banks Island, District of Franklin, 1988-91; M.Sc. thesis (Kemp).
Geochronological control by fission-track ages on glass, apatite and zircon in the tephra beds, augmented by palaeomagnetic studies.

298
WESTGATE, J., STEMPER, B., Univ. Toronto (Geology):
The fission-track age of distal tephra beds in the Pleistocene Gold Hill Loess, Fairbanks, Alaska, 1986-88; M.Sc. thesis (Stemper).
The isothermal plateau fission-track method is applied to glass shards in the distal tephra beds. Geochronology is augmented by palaeomagnetic studies.

GEOLOGICAL COMPUTER APPLICATIONS/APPLICATIONS DE L'INFORMATIQUE À LA GÉOLOGIQUE

299
BRULOTTE, M.E., LYTVIAK, A.T., WYNNE, D., Alberta Research Council (Geological Survey):
AGSWDB Alberta Geological Survey Well Data Base, 1987-.

300
CHUNG, C.F., Geol. Surv. Can.:
Development of computer-based statistical techniques applicable to regional geological and mineral deposit data, 1975-.

301
CHURCH, B.N., JAMES, D.A.R., British Columbia Ministry Energy, Mines, Petrol. Res. (Geological Survey Branch):
The double derivative interpretation of regional magnetic fields in the Bridge River mining camp, British Columbia, 1988.
See:
British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 101-104, 1988.

The registration of the double derivative contours on the principal geological features of the Bridge River mining camp appears to be very good. For example, the strong northwest-trending fabric delineated by the zero contour across the Bridge River sheet (92I/16) and the easterly part of the Tyaughton sheet (92J/15) conforms with the direction of the Yalakom and Marshall Creek faults and the front of the Coast intrusions. Also conforming well with this pattern is the young (Tertiary age) Mission Ridge pluton.

302
DAVID, M., MARCOTTE, D., DIMITRAKOPOULOS, R., École Polytechnique (Génie minéral):
The Expert System approach to geostatistics, 1985-87.
See:
Geostat 1, A prototype Expert System for the explicit knowledge approach to geostatistics; Proc. du 20e Symposium de l'Apcom, octobre 1987, Johannesburg, 1987.

Réaliser un système expert pouvant aider le non-géostatisticien a appliquer les outils sophistiques de la geostatistique

303
GRUNSKY, E.C., EASTON, R.M., THURSTON, P.C., JENSEN, L.S., HOWE, J.M., Ontario Geol. Surv.:
Classification of Archean volcanic rocks using methods of multivariate data analysis, 1985-.
See:
A multivariate investigation of the chemical variability of Archean volcanic rocks: the komatiite suite; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 50, 1987.

A multivariate investigation of the chemical variability of Archean volcanic rocks; Goldschmidt Conference, May 11-13, Baltimore, Maryland, abstract, 1988.

Geochemical classification of Archean volcanic rocks; Ontario Geol. Surv., Misc. Paper 137, p. 337-346, 1987.

304
KOBLUK, D.R., Univ. Toronto (Erindale College):
Computer simulation of coral reef growth dynamics, 1985-.
See:
Development of an interactive holistic simulation for the study of long term reef population growth and dynamics; Proc. Canadian Reef Res. Symp., p. 91, 1987.

305
LYTVIAK, A.T., Alberta Research Council (Geological Survey):
Cartography and graphics, 1986-.
To develop and maintain a basic computer based capability in cartographic representation and data posting.

306
NICHOLS, B., Geol. Surv. Can.:
Seismic systems development, 1984-.

307
REEVES, M., Univ. Saskatchewan (Geological Sciences):
Geological engineering microcomputer applications, 1986-.
A number of packages are under development: MODUSER groundwater program user interface; MINID – mineral identification; STEREO stereonet plot/manipulation; USA – underground stress analysis (BEM); LITHO – borehole log graphics; BLOKRIG – geostats teaching package; various petroleum engineering utilities.

308
REEVES, M., YOST, R., Univ. Saskatchewan (Geological Sciences):
Computer modelling of the Regina Aquifer System, 1986-; Ph.D. thesis (Yost).
A multi-layer 3D model of the complex Regina aquifer system is being constructed using finite-difference methods. Up to 13 layers with over 1000 mesh points per layer are involved – to match the history of head decline and to predict aquifer interactions in glacial deposits with complex 3D-geometry.

309
TESKEY, D.J., Geol. Surv. Can.:
Development of regional geophysical data processing and interpretation methods, 1982-.

310
WILCOX, A.F., British Columbia Ministry Energy, Mines, Petrol. Res.:
MINFILE, 1977-.
See:
New MINFILE – A mainframe and personal computer based mineral inventory database; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 549-554, 1988.

The database contains 9460 deposits as of March 1988. Four 1:250 000 map sheets have been released in the past year 82G, J and M and 93E. The data was released in both hardcopy and as floopy diskettes. To accompany the floppy diskettes a personal computer search program called MINFILE/pc was also released. Up to another 20 map sheets may be released next year. Recording of the entire province is hoped to be completed in 1989, with all data released by 1990.

311
AGTERBERG, F.P., Geol. Surv. Can.:
Probability models for estimating mineral potential and for geoprocessing, 1969-.

312
BONHAM-CARTER, G.F., Geol. Surv. Can.:
Geomathematical applications in the integration of geoscience map data, 1983-.
See:
Catchment basin analysis applied to surficial geochemical data, Cobequid Highlands, Nova Scotia; J. Geochem. Exploration, vol. 29, p. 259-278, 1987.

313
BROWN, T.H., Univ. British Columbia (Geological Sciences):
Computer calculation of phase diagrams, 1980-.
Work is continuing on phase diagram for solid-gas-to melt phase equilibria.

314
BROWN, T.H., Univ. British Columbia (Geological Sciences):
Equation of state for solids and thermodynamic databases of minerals, 1985-.
Work is continuing on extending the equation of solid to high temperature and pressure. This is required to extrapolate thermodynamic data to 3000K and 2 megabars in order to calculate possible reactions in the deep mantle core.

315
DAVID, M., MARCOTTE, D., École Polytechnique (Génie minéral):
Trend surface analysis as a special case of IRF-k kriging, 1987.
Illustration de l'équivalence du "trend surface analysis" et du krigeage universel pour une fonction de covariance généralisée d'ordre très particulière (effet de pépite).

316
GIROUX, G.H., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Comparison of reserve estimation techniques in high grade vein deposits, 1988.
A comparison of various ore reserve estimation methods in gold and/or silver vein deposits for which adequate data exist to compare estimates with production.

317
GRADSTEIN, F.M., Geol. Surv. Can.:
Quantitative stratigraphy in paleooceanography and petroleum basin analysis, 1985-.

318
MARCOTTE, D., École Polytechnique (Génie minéral):
Le krigeage bigaussien: une alternative au krigeage multigaussien pour le recouvrement des réserves, 1986-88.
Le krigeage bigaussien permet d'obtenir la même précision que le krigeage multigaussien en ce qui concerne les réserves récupérables in-situ, à un coût diminué d'un ordre de grandeur. La comparaison entre les deux méthodes est menée pour un gisement simulé et un gisement réel, le gisement de Candelaria.

319
MARCOTTE, D., FOX, J., École Polytechnique (Génie minéral), IREM:
Analyse de données géochimiques de sédiments de fonds de lac des régions de Manicouagan et Shefferville, 1987-88.
On a appliqué la régression, l'analyse en composante principale et la géostatistique afin d'isoler la composant "minéralisation" des valeurs géochimiques.

320
MELLINGER, M., Saskatchewan Research Council (Data Analysis Group):
Usage of multivariate data analysis techniques for the interpretation of geological and geochemical data, 1981-.
See:
Multivariate data analysis: its methods; Chemometrics and Intelligent Lab. Syst., vol. 2, pts. 1-3, p. 29-36, 1987.

Correspondence analysis: the method and its application; ibid., p. 61-77, 1987.

Interpretation of lithogeochemistry using correspondence analysis; ibid., p. 93-108, 1987.

Emphasis is on multivariate descriptive data analysis, extracting models from the data. The main technique used is correspondence (factor) analysis with relevant data recording schemes. Other techniques used are classification methods.

321
STANLEY, C.R., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Stochastic modelling to test the efficiency of anomaly recognition procedures in mineral exploration, 1985-88; Ph.D. thesis (Stanley).
See:
Anomaly recognition for multi-element geochemical data – a background characterization approach; J. Exploration Geochem., vol. 29, p. 333-353, 1987.

An attempt to measure relative efficiencies of various anomaly selection methods that have been proposed in exploration geochemistry.

322
TILKOV, M., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Geostatistical evolution of the Buckhorn mine, Nevada, 1986-89; M.Sc. thesis (Tilkov).
Study will compare various ore reserve estimation techniques utilizing exploration data and production blasthole data.

323
ZODROW, E.L., Univ. College of Cape Breton (Geology):
Sulfur distribution and origin in coal of Sydney Coalfield, Nova Scotia, 1985-.
The five-factor model has been further refined and common factors obliquely rotated to test for factor correlation (correlation of geological influences) in effort to better explain sulfur variations in the coal. It is concluded that coal-sulfur facies maps, seam by seam, are absolutely indespensible to attempt to predict sulfur values.

324
ZODROW, E.L., BANNERJEE, S.K., JESSOME, D.D., Univ. College of Cape Breton (Geology, Mathematics):
Sample distributions of trace metals in coal from Sydney Coalfield, Nova Scotia, 1984-87.
See:
Uranium content and distribution in whole-coal samples, Sydney Coalfield (Upper Carboniferous), Nova Scotia, Canada; Internat. J. Coal Geol., vol. 8, p. 299-303, 1987.

Uranium has comparatively low concentration values (0.51 ± 0.99 ppm) and its distribution is highly positively skewed. Sample population modelling showed that the sample frequencies fit Pearson's Type I (beta function) comparatively the best. The model is interpreted as reflecting sedimentary processes in uranium derivation.

325
DUBOIS, J-M.M., NADEAU, L., LESSARD, G., Université de Sherbrooke (Géographie):
Géomorphologie et évolution littorale de la Côte Nord du Saint-Laurent et de l'île d'Anticosti, Québec, 1976-88.
Voir:
Évolution des flèches de plate-forme rocheuse de l'île d'Anticosti: approche méthodologique et résultats préliminaires; Conf. can Littoral 87, comptes rendus, p. 427, 1987.

Lithostratigraphie et dynamique glaciaires au Wisconsinien, île d'Anticosti, golfe du Saint-Laurent; J. Can. Sci. Terre, vol. 24, p. 1847-1858, 1987.

Établir les tendances d'évolution (érosion-sédimentation) à partir de données géologiques, géomorphologiques, historiques et de terrain.

326
DUBOIS, J-M.M., PROVENCHER, L., Université de Sherbrooke (Géographie):
Géomorphologie des littoraux lacustres et fluviaux et essai de télédétection, 1980-88.
Voir:
Inventaire des habitats à saumons et estimation de production par photographie aérienne; in Restauration des rivières à saumons, Inst. nat. rech. agronomiques, France, p. 85-94, 1987.

La télé-interprétation: un outil au service des canot-campeurs; Le Courant, vol. 11, p. 7-8, 1987.

Développement d'une géomorphologie des littoraux lacustres et fluviaux et essai de reconnaissance par télédétection.

327
FORBES, D.L., Geol. Surv. Can.:
Morphology, sedimentology, and dynamics of Newfoundland coast, 1981-.
See:
Measurements of currents, bottom sediments and seafloor disturbance during CASP; Proc. The Ocean – an international workplace, vol. 3, p. 975-980, 1987.

Near-bed currents and sediment transport on the inner Scotian Shelf during CASP; ibid., p. 981-986, 1987.

328
FRENCH, H.M., Univ. Ottawa (Geography):
Geomorphic and permafrost related processes Western Arctic, Canada, 1988-90.
To develop an in-depth understanding of the geomorphic and permafrost conditions associated with cold, non-glacial, i.e. periglacial, environments. Specific objectives for 1988-90 include: (1) initiation of a long term (10 year) series of observations upon ice wedge growth and decay mechanisms in a transect across the Mackenzie Delta region to Banks Island, (2) continuation of Pleistocene cryostratigraphic and ground ice studies at localities in the Western Arctic, (3) the study of cryopediments, tors and granite weathering in the Barn Mountains, Yukon Territory, and (4) coastal process studies at Cape Kellett, southwest Banks Island, and Holocene solifluction activity at the Umingmak archaeological site, north-central Banks Island.

329
GALLAGHER, J., ROGERSON, R.J., Memoral Univ. (Geography):
Glacial history of inner Nachak Fiord, northern Labrador, 1985-88; M.Sc. thesis (Gallagher).

Includes work on moraines, striations, relative sea level changes, some pollen analysis and perhaps till geochemistry. It traces the retreat of ice out of the inner fiord in the last 10 000 years or so.

330
HEGINBOTTOM, J.A., Geol. Surv. Can.:
Geomorphic processes, Mackenzie Valley-Arctic Coast, 1968-.

331
HOOPER, J., Memorial Univ. (Geography):
Surficial geology and glacial history of the Bernier Bay area, Baffin Island, N.W.T., 1987-89; M.Sc. thesis.

332
HOOPER, J., ROGERSON, R.J., Memorial Univ. (Geography):
Surficial geology and glacial history of the Bernier Bay area, Baffin Island, Northwest Territories, 1987-88; M.Sc. thesis (Hooper).

333
LAURIOL, B., CINQ-MARS, J., Université d'Ottawa (Géographie):
Géomorphologie des massifs calcaires du nord du Yukon, 1985-.
Au cours de l'été 1987, on a continué l'inventaire des cavernes sur le massif de Bear Cave, au sud d'Old Crow, et commencer l'étude du massif des White Mountains. L'objectif est d'établir les modalités de l'érosion du paysage au Pléistocène et à l'Holocène.

334
LAURIOL, B., GRAY, J.T., Université d'Ottawa (Géographie):
Géomorphologie glaciaire de l'Ungava, Québec, 1976-.
See:
The decay and disappearance of the late Wisconsin ice sheet in the Ungava Peninsula, Northern Quebec, Canada; Arctic and Alpine Res., vol. 19, no. 2, p. 109-126, 1987.

L'objectif de la recherche est de connaître les mouvements glaciaires et les étapes de la déglaciation sur la péninsule d'Ungava, et sur les îles avoisinantes: île d'Akpatok, île Charles, îles du Cap Smith.

335
ROGERSON, R.J., EVANS, D.J.A., BELL, T., GALLAGHER, J., Memorial Univ. (Geography):
Glacier and glacial geomorphology of northern Labrador, 1981-; M.Sc. theses (Evans, Bell).
See:
Acoustic survey and glacial history of Adams Lake, outer Nachvak Fiord, northern Labrador; Geol. Surv. Can., Paper 87-1A, p. 101-110, 1987.

336
ROGERSON, R.J., GALLAGHER, J., Memorial Univ. (Geography):
Glacial history of inner Nachvak Fiord, northern Labrador, 1985-88; M.Sc. thesis (Gallagher).
Includes work on moraines, striations, relative sea level changes, some pollenanalysis and perhaps till geochemistry. It traces the retreat of ice out of the inner fiord in the last 10 000 years or so.

ELECTRICAL/MÉTHODES ÉLECTRIQUES

337
BARLOW, R.B., Ontario Geol. Surv.:
Night Hawk geophysical test range, Ontario, 1981-.
During the 1987 field season, the Night Hawk geophysical test range near Timmins, Ontario, was utilized for testing, research, and instruction purposes by personnel from industry, universities, and government. Section staff, together with personnel from Geoprob Limited of Toronto, carried out field work using the new, scaled down Maxiprobe EM system. The test range was used to demonstrate Canadian geophysical equipment to delegates from 26 countries as part of the Exploration '87 field school held in September.

338
CHOUTEAU, M., VALLEE, M-A., École Polytechnique (Génie minéral):
Améliorations à la technique du VLF aéroporté pour la prospection géophysique, 1986-89; thèse de doctorat (Vallee).
Nous travaillons présentement sur les techniques de correction à appliquer aux données du système TOTEM, pour corriger les variations temporelles et spatiales du champ primaire.

339
DELAURIER, J.M., Geol. Surv. Can.:
Magnetotelluric depth-sounding over western Cordillera, 1987-.

340
DYCK, A., Queen's Univ. (Geological Sciences):
Interpretation of borehole electromagnetic surveys – improvement of methods, 1986-.

341
DYCK, A., MARCHAND, N., Queen's Univ. (Geological Sciences):
Borehole electromagnetic scale-model experiments, 1985-; M.Sc. thesis (Marchand).

342
DYCK, A.V., Geol. Surv. Can.:
Borehole geophysics (electrical and magnetic techniques), 1974-.

343
HANNESON, J.E., HUXTER, R.S., Ontario Geol. Surv.:
Detection and mapping of basement conductors under areas covered by thick Huronian sedimentary rocks, 1986-90.
See:
The detection and mapping of basement conductors under areas covered by thick Huronian sedimentary rocks, District of Timiskaming; Ontario Geol. Surv., M.P. 137, p. 406-410, 1987.

The second year of a research project to investigate the potential for detecting and tracing conductive strata in Precambrian rocks overlain by thick Huronian stratigraphy, in the Moose Lake sub-basin area west of Cobalt, has been initiated.

Field testing undertaken during the early part of the season was directed toward analysis of the EM noise conditions, in the vicinity of the town of Cobalt. Late season activities included surveying with ground transient EU equipment in Coleman and Firstbrook Townships. Further computer modelling was undertaken for the purpose of improving existing interpretation techniques.

344
JENSEN, O.G., BARONGO, J.O., McGill Univ. (Geological Sciences):
Geological mapping in tropical terrains by AEM-Input methods, 1985-89; Ph.D. thesis (Barongo).
Barongo has just completed his second in-field ground study of the area under study in Western Kenya, the INPUT data set has been digitized and is ready for inversion.

345
JONES, A.G., Geol. Surv. Can.:
Electromagnetic studies of the Canadian landmass and adjacent offshore regions, 1987-.

346
KNIGHT, R., Univ. British Columbia (Geological Sciences):
Dielectric measurements of the distrubiton of water in multiphase saturated sandstones, 1987-.
Laboratory equipment for measurement of electrical properties of rock samples has been set-up at the University of British Columbia.

347
LAW, L.K., Geol. Surv. Can.:
Electromagnetic soundings of specific onshore and offshore regions in western Canada, 1986-.

EXPLORATION/PROSPECTION

348
CHOUTEAU, M., DESCHAMPS, F., École Polytechnique (Génie minéral):
Recherche et développement de modèles géophysiques pour une intégration des données géophysiques et géologiques de la région à l'ouest de Rouyn-Noranda, 1987-88; M. Ing. (Deschamps).
Amélioration de la cartographie géologique à l'aide des cartes gravimétriques, magnétiques et électromagnétiques; développement d'outils de traitement des données géophysiques pour détermination fine de ces structures.

349
DYCK, A., HOLLYER, G., Queen's Univ. (Geological Sciences):
Physical characterization of a mineral deposit and its environment, 1987-; M.Sc. thesis (Hollyer).

350
JENSEN, O.G., GREGOTSKI, M., McGill Univ. (Geological Sciences):
Inversion of gravity and magnetics potential field data assuming fractal source distributions, 1985-; Ph.D. thesis (Gregotski).
Geological variations appear to be fractal. Inversion of geophysical data sets, particularly gravity/magnetics potential field data, requires implicit assumptions about geological source variation. Methods are being developed to include knowledge of the fractal nature of these variations.

351
KILFOIL, G.J., Newfoundland Dept. Mines and Energy:
Geophysical support for geological mapping, 1988-.
See:
Geophysical investigations at Weir's Pond, Mount Sylvester and Snowshoe Pond, Newfoundland: Implications for lithologic distribution and structure; Newfoundland Dept. Mines, Rept. 88-1, 1988.

Geophysical projects, coordinated with 1:50 000 scale geological mapping projects undertaken by the Department's project geologists in areas of insular Newfoundland and Labrador, consist of: 1) compilation, enhancement and interpretation of existing geophysical survey data; and 2) ground investigations of interesting or anomalous areas.

352
KREBES, E.S., Univ. Calgary (Geology and Geophysics):
Seismic wave propagation in non-ideal media, 1977-.
See:
Reflection and transmission at plane boundaries in nonwelded contact; J. Can. Soc. Exploration Geophysicists, vol. 23, no. 1, p. 66-72, 1987.

353
MACNAB, R.F., Geol. Surv. Can.:
East coast potential fields, 1973-.

354
QUENNEVILLE, J., CHOUTEAU, M., École Polytechnique (Génie minéral):
Traitement des données TBF par filtrage numérique, 1986-88; M.Sc.A. (Quenneville).
On veut développer un algorithme robuste d'interprétation automatique des levés TBF par filtrage multicanal. On a établi les réponses caractéristiques des principaux modèles rencontrés en technique TBF et on est à l'étape du "design" des filtres.

GEOMAGNETISM-PALEOMAGNETISM/ GÉOMAGNÉTISME-PALÉOMAGNÉTISME

355
BOWER, M.E., Geol. Surv. Can.:
Ocean aeromagnetics, Arctic offshore, 1965-.

356
BUCHAN, K.L., Geol. Surv. Can.:
Vertical movements of the Precambrian Shield, 1980-.

357
BUCHAN, K.L., Geol. Surv. Can.:
Paleomagnetism of Nipissing diabase and Abitibi dykes, Ontario and Quebec, 1982-.

358
BUCHAN, K.L., Geol. Surv. Can.:
Paleomagnetism of the Appalachian orogen of Eastern Canada, 1985-.

359
CHOUTEAU, M., CHAKRIDI, R., École Polytechnique (Génie minéral):
Interprétation de données magnétotelluriques de régions à géologie complexe, 1987-89; thèse de doctorat (Chakridi).
Mise au point d'un ensemble de méthodes d'interprétation des données MT de régions cristallines (distorsion 3D, indicateurs de géométrie, effet statique et topographique...)

360
CHOUTEAU, M., GHANEM, Y., École Polytechnique (Génie minéral):
Réinterprétation des données aéromagnétiques de Timqaouine-Hogger (sud Algérie), 1985-88; M.Sc.A. (Ghanem).
Réinterprétation des données aéromagnétiques de Timgaouine. Cartographie des différentes structures. Recommandations économiques. Travaux en phase finale (Rédaction de thèse).

361
CHRISTIE, K.W., Geol. Surv. Can.:
Paleomagnetism and rock magnetism instrumentation and technological development, 1970-.

362
DESCHAMPS, F., CHOUTEAU, M., IREM-MERI:
Intégration des données géophysiques et géologiques à l'ouest de Rouyn-Noranda, Québec, 1987-88.
Recherche et développement de modèles géophysiques pour une intégration de données géologiques et géophysiques de la région à l'ouest de Rouyn-Noranda.

363
DEUTSCH, E.R., Memorial Univ. (Earth Sciences):
Applications to plate tectonics in Atlantic/Arctic borderlands, and nature of the oceanic crust.
See:
Magnetism of igneous rocks from the Tourmakeady and Glensaul inliers, western Ireland: mode of emplacement and aspects of the Ordovician field pattern; Geophys. J. 1987.

An aspect of the project completed in 1987 resulted in the finding of a major westward swing of the apparent polar wandering curves for both Scotland and northwestern Ireland between mid-Ordovician and Late Ordovician to Silurian time. Paleomagnetic comparisons with time-equivalent rocks in western Newfoundland and across the Proto-Atlantic suture in the British Isles and Newfoundland are in progress.

364
DEUTSCH, E.R., PRASAD, J.N., Memorial Univ. (Earth Sciences):
A paleomagnetic investigation of early Paleozoic rocks in western Newfoundland, 1982-; Ph.D. thesis (Prasad).
See:
Ordovician paleomagnetic results from the St. George and Table Head carbonates of western Newfoundland; Can. J. Earth Sci., vol. 24, p. 1785-1796, 1987.

A paleomagnetic study of mid-Cambrian to mid-Ordovician carbonate formations on the western platform (Humber Zone) of Newfoundland, both autochthonous and from the allochthonous Cow Head Group, has been completed. The autochthonous rocks gave new, reliable early Paleozoic poles, as well as overprinted results of probable late Paleozoic age. The study is being extended to sedimentary (mainly carbonate) exposures in other locations of western Newfoundland.

365
FAHRIG, W.F., Geol. Surv. Can.:
Paleomagnetism of the dykes of west Greenland, 1972-.

366
FAHRIG, W.F., Geol. Surv. Can.:
Paleomagnetism of Proterozoic igneous and sedimentary rocks of the Precambrian Shield, 1984-.

367
HALLS, H.C., PALMER, H.C., BATES, M.P., SHAW, E., Univ. Toronto (Erindale College, Geology), Univ. Western Ontario (Geophysics):
Paleomagnetism of Precambrian dykes in the vicinity of the Kapuskasing Structural Zone, 1984-90; M.Sc. thesis (Shaw).
110 paleomagnetic sites comprising more than 700 samples have been collected from Matachewan dykes within about 200 km from the Kapuskasing Structural Zone. The distribution and relative age of normal and reversed polarity dykes is being studied. Anomalous paleomagnetic directions in the vicinity of the KSZ are interpreted in terms of crustal rotations along this zone. Regional variations in hydrous alteration are also strongly related to the KSZ. A further 30 paleomagnetic sites have been collected from 2.0 Ga ENE-trending Kapuskasing dykes.

368
HODYCH, J.P., Memorial Univ. (Earth Sciences):
Timing and mechanism of remanence acquisition in Cambro-Ordovician limestones of western Newfoundland, 1987-90.

369
HODYCH, J.P., AKSU, A., TULLOCH, M., Memorial Univ. (Earth Sciences):
Paleomagnetism and magnetic properties of Arctic deep-sea soft-sediment cores, 1988-90; M.Sc. thesis (Tulloch).

370
IRVING, E., Geol. Surv. Can.:
Paleomagnetic studies, 1986-.
See:
Preliminary paleomagnetic results from the Permian Asitka Group, British Columbia; Can. J. Earth Sci., vol. 24, no. 6, p. 1490-1497, 1987.

371
KNAPPERS, W.A., Geol. Surv. Can.:
Aeromagnetic survey – Laurentian channel, 1985-.

372
KNAPPERS, W.A., Geol. Surv. Can.:
Vancouver Island and British Columbia coast, 1986-.

373
KNAPPERS, W.A., Geol. Surv. Can.:
Aeromagnetic survey, Grand Banks, 1987-.

374
LANGRIDGE, R.J., FARRAR, E., CLARK, A.H., ROY, J. Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
A paleomagnetic study of the Arequipa Massif, southern Peru., 1982-; Ph.D. thesis (Langridge).
Studies of the Precambrian to present igneous, sedimentary and volcanic rocks exposed in this area are continuing using the facilities available at the Geomagnetic Laboratory in Ottawa.

375
LERBEKMO, J.F., Univ. Alberta (Geology):
Magnetostratigraphy of the Lower Campanian in southern Alberta, 1986-88.
The Campanian 33-33r polarity chron boundary occurs approximately at the Foremost-Pakowki formational boundary just east of the crest of the Sweetgrass Arch.

376
LERBEKMO, J.F., Univ. Alberta (Geology):
Magnetostratigraphy of the Paleocene Paskapoo Formation in the Red Deer Valley of central Alberta, 1987-88.
Mammal sites in the Paskapoo Formation east of Red Deer in the Red Deer Valley yielding middle Tiffanian (Ti 3) land mammal ages are in reversed polarity zone approximately 100 m thick which is believed to be 26r.

377
MARESCHAL, M., École Polytechnique (Génie minéral), IREM.
Modélisation – inversion de données magnétotelluriques en environnement géologiquement complexe, 1987-90.
See:
Some possible constraints on the structural geology beneath Charlevoix Crater, Quebec; Physics of the earth and planetary interiors, 1988.

A 1-diem S.V.D. inversion scheme of resistivity and phase data: application to the data of la Malbaie; J. Geomagnetism and Geoelectricity, 1988.

La première étape du travail consiste à mettre au point un programme d'inversion de données MT 1-diem définissant les intervalles de confiance de chacun des paramètres. Le programme a été testé sur des données québécoises. La prochaine étape consistera à faire de la modélisation directe de situation pseudo 2 ou 3 dim. (application de l'approximation en plaques minces).

378
MARESCHAL, M., CHOUTEAU, M., CHAKRIDI, R., École Polytechnique (Génie minéral), IREM:
A broadband magnetotelluric study of the Groundhog River Block (Kapuskasing Structural zone – Lithoprobe), 1987-88; thèse de doctorat (Chakridi).

Les mesures magnétotelluriques ont été entreprises sur 13 sites en août 1987. Les données sont traitées et une première invasion en terme de modèle à 1-diem confirme le fait que le block est très résistant. Donc, la haute conductivité électrique souvent observée à la base de la croûte est en effet de température et pression et non pas de minéralogie.

379
MURTHY, G.S., Memorial Univ. (Earth Sciences):
Studies of Paleozoic, Precambrian (and Proterozoic) intrusive rocks from Newfoundland and Labrador.

380
OLSON, D.G., Geol. Surv. Can.:
High resolution aeromagnetics (experimental surveys), 1968-.

381
PARK, J.K., Geol. Surv. Can.:
Paleomagnetism of the Michael Gabbro, 1986-.

382
PARK, J.K., Geol. Surv. Can.:
Paleomagnetic history of the Mackenzie Arc, 1986-.

383
ROHR, K., Geol. Surv. Can.:
Paleomagnetic studies in western Canada.

384
SAWATZKY, P., Geol. Surv. Can.:
High resolution aeromagnetics (instrumentation development), 1977-.

385
SEGUIN, M.K., Université Laval (Géologie):
Paléomagnétisme des roches paléozoique de la zone d'Avalon, 1983-90.
Le but principal de cette recherche est l'établissement d'une courbe de trajectoire apparente des poles pour la période: Précambrian supérieur (Hadrynien)-Paléozoïque supérieur (Carbonifère-Permien). Une étude détaillée de cette zone permettra de positionner ce segment des Appalaches du Nord par rapport aux secteurs du craton nord-américain et à la marge andéenne de l'Amérique de Nord.

386
SYMONS, D.T.A., DEKLERK, R.P., LEWCHUK, M.T., BORMANN, R., WELLINGS, M., Univ. Windsor (Geology):
Paleomagnetic studies in the Precambrian and Cordillera, 1985-88; M.Sc. theses (Deklerk, Lewchuk).
Geotectonic motions are being studied: 1) in the Cordillera using the Eocene Kamloops volcanics (Wellings), Eocene-Cretaceous-Jurassic plutons of the Kootenay Arc (Deklerk), and the Mississippian HP Pipe (Lewchuk); 2) in the Precambrian using several alkali-carbonatite plutons in Ontario (Symons/Lewchuk) and Archean volcanics near Wawa (Symons); and 3) in the Appalachians using the Triassic FundyGorup red beds (Bormann).

GEOTHERMAL/GÉOTHERMIQUE

387
DRURY, M.J., Geol. Surv. Can.:
Thermotectonics and thermal processes of the lithosphere, 1987-.
See:
Some new measurements of heat flow in the Superior Province of the Canadian Shield; Can. J. Earth Sci., vol. 24, no. 7, p. 1486-1489, 1987.
Thermal diffusivity of some crystalline rocks; Geothermics, vol. 16, no. 2, p. 105-115, 1987.

388
LEWIS, T., Geol. Surv. Can.:
Heat flow studies, western Canada, 1986-.

389
WRIGHT, J.A., Memorial Univ. (Earth Sciences):
Marine geothermal measurement.
Investigation of marine heat flow on the shelves of Canada's Atlantic and Pacific margins – to aid in determining the thermal history of the offshore sedimentary basins.

GRAVITY/GRAVITÉ

390
ARKANI-HAMED, J., Brock Univ. (Geological Sciences):
Magnetic anomalies of the earth derived from the Magnetometer Satellite (MAGSAT) data.
See:
An interpretation of magnetic signatures of subduction zones detected by MAGSAT; Tectonophysics, vol. 133, p. 45-55, 1987.

391
BOYD, B., Geol. Surv. Can.:
Gravity mapping of Arctic Island Channels, 1986-.

392
COOPER, R.V., Geol. Surv. Can.:
Gravity mapping of Eastern Canada, 1986-.

393
GUPTA, V.K., JOHNSTONE, R.M., Ontario Geol. Surv.:
Gravity survey in the Iroquois Falls-Lake Abitibi area, Ontario, 1987-89.
See:
Gravity survey in the Iroquois Falls-Lake Abitibi area, District of Cochrane; Ontario Geol. Surv., M.P. 137, p. 411-414, 1987.
A gravity survey of the Iroquois Falls-Lake Abitibi area (7200 km^2) was undertaken during the 1987 field season to aid in the regional subsurface geological interpretation of a complex stratigraphic succession of komatiitic, tholeiitic, and calc-alkalic volcanic rock group.
Approximately 2000 gravity stations were established by an eight-man field party during the summer months. Interpretation of the gravity data will aid in determining the geometry of technological units, as well as the depth of infolding and large structural features of this portion of the Abitibi Belt.

394
LAMBERT, A., Geol. Surv. Can.:
Determination of regional and large scale deformation in Canada.

395
MILLER, H.G., CUMMING, E., KILFOIL, G.J., RAKSASKULWONG, M., Memorial Univ. (Earth Sciences):
Gravity, magnetic and crustal studies and theoretical gravity interpretation methods; M.Sc. theses (Cumming, Kilfoil), Ph.D. thesis (Raksaskulwong).

396
NAGY, D., Geol. Surv. Can.:
Gravitational field modelling, analysis and interpretation technques, 1986-.

397
SEEMAN, D., Geol. Surv. Can.:
Gravity mapping, Canada Cordillera and Pacific Margin, 1986-.
See:
Gravity measurements on the Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 283-286, 1988.

398
STRANGWAY, D.W., ARKANI-HAMED, J., Univ. British Columbia (Geophysics and astronomy):
Magnetic anomalies of the earth derived from the Magnetometer Satellite (MAGSAT) data.
See:
An interpretation of magnetic signatures of subduction zones detected by MAGSAT; Tectonophysics, vol. 133, p. 45-55, 1987.
Magnetization of oceanic upper mantle; Geophys. Res. Letters, vol. 15, p. 48-51, 1988.

399
WOODSIDE, J., Geol. Surv. Can.:
Analysis of marine and satellite gravity and geoidal data, 1985-.

SEISMOLOGY AND PHYSICS OF INTERIOR/SISMOLOGIE ET PHYSIQUE DE L'INTÉRIEUR DE LA TERRE

400
ADAMS, J.E., Geol. Surv. Can.:
Seismotectonics and seismic hazard on the eastern and northern Continental margin.

401
BROMLEY, D.S., Geol. Surv. Can.:
High resolution seismic investigations of Carboniferous rocks, Nova Scotia, 1987-.

402
BURKE, K.B.S., BIDISCOMBE, P., COMEAU, R., SLAUENWHITE, S., Univ. New Brunswick (Geology):
Historical seismicity of the Passamaquoddy Bay region of New Brunswick, 1986-89.
The historical seismicity record for the Passamaquoddy Bay region during the period 1811 to 1961 has been investigated under two contracts with the Geophysics Division of the Geological Survey of Canada. Newspapers and other historical documents have been

scanned for references to earthquakes and related phenomena in southwestern New Brunswick. Ten previously unlisted seismic events from the Passamaquoddy Bay region were found in this way.

Felt earthquakes occurred in the Passamaquoddy Bay region in every decade of the period covered, 1811 to 1961, except for the 1840s, supporting the idea of this being an area of enhanced seismicity. Three earthquakes with felt area magnitude estimates of 4½ to 5, 5.7 and 5.9 occurred in 1817, 1869 and 1904 respectively, with some evidence of an increase in the numbers of earthquakes in the decades preceedings the 1869 and 1904 events. Evidence was also found for changes to present listings of earthquakes, locations, times and magnitudes in the Canadian Earthquake Epicentre File (CEEF).

403
CAMERON, B., MUTUNGA, E., MacLEAN, B.C., Acadia Univ. (Geology):
Seismic stratigraphy of part of the upper Nova Scotian Continental Slope, 1987-88.
See:
Seismic stratigraphy of part of the upper Nova Scotian continental slope: a progress report; Scotia Dept. Mines, Rept. Activities 1987, pt. B, 1988.

Fifteen seismic profiles, totalling 355 kms are being used to study the late Mesozoic and Cenozoic seismic stratigraphy of part of the upper continental slope off central Nova Scotia. This area, covering an area of about 1400 square kms has one exploratory well.

Five major sequences defined by five seismic unconformities reveal a general basinward shift and progradation of the paleoslope environment. At the base of the study interval, a major unconformity separates Upper Jurassic and Lower Cretaceous carbonates from dominantly clastic sediments above. The sequence above terminates at the Cretaceous-Tertiary unconformity. The next overlying sequence exhibits a variety of seismic facies that may relate to Vail's (1987) 'low stand systems tract.' This is unconformably overlain by an 'high stand systems tract', which in turn is followed by another seismic unconformity and a 'low stand systems tract.' The fifth seismic unconformity above is covered by a wedge-shaped squence of Quaternary clastics.

404
DOIG, R.,
McGill Univ. (Geological Sciences):
A method of paleoseismicity using abnormal silting events in lake sediments, 1984-.
Having demonstrated the method in the epicentral region of Charlevoix, Québec, the current objectives are to obtain longer lake-sediment cores to provide a better estimate of pre-historic seismicity, and to apply the method in other seismically active regions closer to large population centres.

405
EDWARDS, A., Geol. Surv. Can.:
Regional geophysics of Mesozoic-Cenozoic of Baffin Bay – Labrador Margin, 1985-.

406
GAGNE, R.M., Geol. Surv. Can.:
Shallow seismic, 1979-.

407
HALL, J., AZIZ, G., Memorial Univ. (Earth Sciences):
Characterization and interpretation of the physical properties of the deep crust and lithosphere; M.Sc. thesis (Aziz).

408
HAMILTON, T.S., Geol. Surv. Can.:
The geology of the Strait of Georgia, British Columbia, 1982-.

409
HORNER, B., Geol. Surv. Can.:
Determination of Cordilleran seismicity, 1986-.

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JACKSON, H.R., Geol. Surv. Can.:
Arctic Ocean: seismic refraction and related geophysical measurements, 1978-.

411
JACKSON, H.R., Geol. Surv. Can.:
Seismic refraction along the Canadian Polar Margin, 1984-.

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KEEN, C.E., Geol. Surv. Can.:
Marine deep seismic reflection studies – offshore eastern Canada, 1986-.
See:
Deep crustal structure and evolution of the rifted margin northeast of Newfoundland: results from LITHOPROBE East; Can. J. Earth Sci., vol. 24, no. 8, p. 1537-1549, 1987.

413
KENDALL, J.M., THOMSON, C.J., Queen's Univ. (Geological Sciences):
Ray theory in anisotropic media, 1986-.
To compare the competing/combined effects of lateral wavespeed variations and anisotropy on seismic waveforms using ray theory and its extension Maslov asymptotic theory.

414
LAMBERT, A., Geol. Surv. Can.:
Relationship of tilt, strain and gravity variations to seismicity at Charlevoix, Quebec, 1986-.
See:
The seismic travel-time drop in the Charlevoix region from 1979 to 1980: evidence for aligned saturated cracks in the crust; Tectonophysics, vol. 14, p. 145-152, 1987.

415
LUDDEN, J., CHOUTEAU, M., IREM-MERI:
Section vibroséismique expérimentale à travers le district minier de Rouyn-Noranda, Québec, 1988.
Le projet vise à mieux connaître la lithosphère dans la région abitienne et établir des modèles géologiques qui vont permettre de mieux prevoir la distribution des gites minéraux.

416
LUDDEN, J.N., GREEN, A., HUBERT, C., Université de Montréal (Géologie), Geol. Surv. Can.:
Geological interpretation of lithoprobe seismic line in the Noranda Mining camp, Québec.

417
MacLEAN, B.C., Geol. Surv. Can.:
Interpretation of geophysical data from the Scotian margin and adjacent areas as an aid to basin synthesis and estimation of hydrocarbon potential, 1984-.

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OVERTON, A., Geol. Surv. Can.:
Ice island seismic reflection studies, 1984-.

419
PULLAN, S.E., Geol. Surv. Can.:
High resolution seismic (equipment development), 1980-.

420
REID, I., Geol. Surv. Can.:
Seismic studies of continental margins and ocean basins of the North Atlantic, 1980-.
See:
Crustal structure of the Nova Scotia margin in the Laurentian Channel region; Can. J. Earth Sci., vol. 24, no. 9, p. 1859-1868, 1987.

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REID, I., Geol. Surv. Can.:
Seismicity studies of the eastern Canadian margin, 1983-.

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RICHARDSON, K.A., Geol. Surv. Can.:
Geophysical studies – Nova Scotia Mineral Development Agreement, 1984-.

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ROCHESTER, M.G., WU, W.J., Memorial Univ. (Earth Sciences):
Theoretical global geodynamics, 1961-.
See:
Earth's third ocean, the liquid core; Eos, Trans. Amer. Geophys. Union, vol. 68, no. 482, p. 491-492, 1987.

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ROGERS, G.C., Geol. Surv. Can.:
Seismotectonics of western Canada, 1986-.

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SEGUIN, M.K., AZZARIA, L., Université Laval (Géologie):
Études géophysiques et géochimiques pour fin de prédiction des tremblements de Terre de la région de La Malbaie, Québec, 1985-90.
L'objectif des recherches géophysiques et géochimiques est l'établissement de critères qui soient valables et essentiels à la prédiction des tremblements de Terre de la région de La Malbaie. On fait appel aux variations de la concentration de certains éléments chimiques dans l'eau de trous profonds, à des levés gravimétriques et magnétiques sur des structures faillées actives et enfin des paramètres mesurés de la seismicité et à la variation de l'accélération terrestre en fonction du temps.

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SPENCER, C., Geol. Surv. Can.:

Seismological studies of the Canadian landmass and adjacent regions, 1987-.

427
THOMSON, C.J., Queen's Univ. (Geological Sciences):
Ray theory corrections for diffraction in seismic modelling, 1986-.
To extend classical diffraction theory for grazing and critical rays to laterally varying media.

428
WEICHERT, D., Geol. Surv. Can.:
Beaufort/Queen Charlotte Islands seismicity, 1986-.
See:
Lithospheric structure from earthquake depth, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 289, 290.

OTHER/AUTRE

429
BRISTOW, Q., Geol. Surv. Can.:
Nuclear and analytical instrumentation, 1981-.

430
CHOUTEAU, M., MARCOTTE, D., CINQ-MARS, A., École Polytechnique (Génie minéral):
Caractérisation du gisement stratiforme de plomb de Yava, Nouvelle-Ecosse à l'aide de mesures géophysiques en forage, 1986-88.
Cette étude vise à établir le lien entre la minéralisation et différentes mesures géophysiques prélevées dans des trous de forages (diagraphies) dans un gisement stratiforme de plomb. On cherchera à déterminer quelle méthode ou quelle combinaison la méthode offre la meilleure reponse à minéralisation. On étudiera également la possibilité d'utiliser ces informations afin de prédire les teneurs le long des trous de forages.

431
CINQ-MARS, A., MWEMIFUMBO, J., CHOUTEAU, M.,
École Polytechnique (Génie minéal):
Caractérisation du gisement de plomb de Yava (N.-S.) par mesures géophysiques en trou de forage, 1986-88; M.Sc. A. (Cinq-Mars).
Aidé des mesures géophysiques en trou de forage (densité, radiométrie, électrique,...) et de la géostatistique, on veut déterminer les méthodes les plus appropriées pour identifier les lithologies et la minéralisation. Les levés géophysiques ont été exécutés et l'étude statistique est très avancée.

432
DRAGERT, H., Geol. Surv. Can.:
Contemporary crustal deformation, western Canada, 1986-.

433
DRAGERT, H., Geol. Surv. Can.:
Crustal strain of western Canada, 1986-.

434
FORSYTH, D., Geol. Surv. Can.:
Geophysical investigation of the Canadian Arctic, 1987-.

435
GREEN, A., Geol. Surv. Can.:
GLIMPCE: Geophysical investigations of the Great Lakes region, 1987-.

436
GREEN, A., Geol. Surv. Can.:
Lithoprobe: Geophysical investigations across key geological targets, 1987-.

437
GRIEVE, R., Geol. Surv. Can.:
Impact processes and evolution of the Earth's Crust, 1986-.
See:
Terrestrial impact structures; Ann. Rep. Earth and Planetary Sci., vol. 15, p. 245-270, 1987.
The melt rocks of the Boltysh impact crater, Ukraine, USSR; Contrib. Mineral. Petrol., vol. 97, p. 56-62, 1987.

438
GRIEVE, R., Geol. Surv. Can.:
Crustal genesis and evolution studies, 1986-.

439
HUNTER, J.A., Geol. Surv. Can.:
Beaufort Sea permafrost geotechnics, 1984-

440
HYNDMAN, R., Geol. Surv. Can.:
Geophysical studies, western Canada, 1986-.

441
JENSEN, O.G., AGAPEEW, G., McGill Univ. (Geological Sciences):
Geological justification of fractal geophysical models used in seismic reflection data processing, 1986-; M.Sc. thesis (Ag, [illegible]).
The stochastic model used for the seismic reflectivity sequence is of major influence in seismic deconvolution problems. Our fracta, f-noise models are now being justified geologically.

442
KATSUBE, T.J., Geol. Surv. Can.:
Physical rock properties, 1987-.
See:
Effective aperture for fluid flow in microcracks; Internat. J. Rock Mechanics and Mining Sci. and Geomath. Abstracts, vol. 24, no. 3, p. 175-183, 1987.

443
KEEN, C.E., Geol. Surv. Can.:
Rift processes and the development of passive continental margins, 1980-.

444
KILFOIL, G.J., Memorial Univ. (Geology):
An integrated gravity, magnetic and seismic interpretation of the Carboniferous Bay St. George Subbasin, western Newfoundland, 1984-88; M.Sc. thesis.
Geophysical data are interpreted in terms of the tectonics leading to the present configuration of basement blocks beneath the subbasin, and its influences on the deposition and internal structure of Carboniferous strata. Emphasis is placed on extension of known geology into the offshore.

445
KOUBA, J., Geol. Surv. Can.:
Develop mathematical models and software to facilitate world wide satellite positioning and navigation and optinize their applications in geophysics, 1986-.

446
MWENIFUMBO, J., Geol. Surv. Can.:
Borehole geophysics applications to coal, 1982-

447
PALACKY, G.J., Geol. Surv. Can.:
Airborne resistivity mapping, 1985-.
See:
Clay mapping using electromagnetic methods; First Break, vol. 5, no. 8, p. 295-306, 1987.

448
RANALLI, G., FADAIE, K., ERNST, R., Carleton Univ. (Earth Sciences):
Rheology and dynamics of lithosphere and mantle, 1987-90; Ph.D. theses (Fadaie, Ernst).
See:
Rheology of the Earth; London: Allen & Unwin, 1987.
The Great Abitibi Dyke, southeastern Superior Province, Canada; Geol. Assoc. Can., Sp. Paper 34, p. 123-135, 1987.

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ROGERS, G.C., Geol. Surv. Can.:
Lithospheric structure from earthquake depth, 1987-.
See:
Lithospheric structure from earthquake depth, Queen Charlotte Island, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 289, 290, 1988.

450
SEGUIN, M.K., ALLARD, M., Université Laval (Centre d'études nordiques):
Étude du pergélisol de la région de Kangiqsulujjuaq, 1984-89.
Voir:
La géophysique appliquée au pergélisol, Québec nordique: historique et developpements récents; Géographie physique et Quaternaire, vol. 41, no. 1, p. 127-140, 1987.
Holocene evolution of permafrost near the tree line on the eastern coast of Hudson Bay (northern Quebec); J. Can. Sciences de la Terre, vol. 24, p. 2206-2222, 1987.
Etude fondamentale des propriétés physiques et de la geométrie du pergélisol. Géophysique de surface et dans les trous de forage. Ceci induit la résistivité électrique, la polarisation provoquée, la polarisation spontanée, la géothermie, la sismique réfraction, le carottage neutronique et le georadar. Le suivi temporel des expériences géophysique in-situ et la modélisation de sites types.

ENGINEERING GEOLOGY/GÉOLOGIE DE L'INGÉNIEUR

451
CHAGNON, J.Y., LOCAT, J., Université Laval (Géologie):
Geological evolution of the seismicity of the Charlevoix area, Quebec, 1985-88; M.Sc. thesis (Locat).
See:
the effects of seismic activity on the soils of the Charlevoix area, Quebec, Canada; Proc. Int. Symp. natural and man-made hazards, Rimouski 1986, 1988.

The study of geomorphological and geological features in recent deposits (Quaternary) resulting from seismic activity, i.e., sand dykes and sand volcanoes. Work nearing completion (75%).

452
CHAGNON, J.Y., LOCAT, J., Université Laval (Géologie):
Évoluation du potentiel de liquéfaction des sols par la mesure de la vitesse de propagation des ondes de cisaillement, 1987-88.
Mise au point d'une méthode de mesure de lavitesse de propagation des ondes de cisaillement dans les sols granulaires. Cette méthode sera bosée l'emploi d'un appareil portatif de sismique-réfraction. Etat d'avancement: 75%.

453
CHAGNON, J.Y., LOCAT, J., Université Laval (Géologie):
Développement d'une méthodologie du microzonage sismique applicable aux régions urbaines du Canada, 1987-89.
Mettre au point une méthodologie simple et efficage de microzonage sismique. La méthode s'appliquera à la région de Québec initialement et ensuite à d'autres régions du Canada. Etat d'avancement = 15% complété.

454
DALLIMORE, S.R., Geol. Surv. Can.:
Geological and geotechnical conditions, Beaufort Sea coastal zone, 1985-.

455
EVANS, S.G., Geol. Surv. Can.:
Landslide hazards in the Canadian Cordillera, 1983-.

456
GALE, J.E., Memorial Univ. (Earth Sciences):
Movement of fluids through fractured argillaceous and crystalline rocks.

457
GALE, J.E., Memorial Univ. (Earth Sciences):
Analysis of fracture and hydrology data from Stripa, Sweden.

458
GALE, J.E., Memorial Univ. (Earth Sciences):
Uncoupled and coupled stiffness-permeability-temperature relationships of rock joints under direct shear conditions, 1986-87.

459
GALE, J.E., Memorial Univ. (Earth Sciences):
Fluid pressure induced micro-seismic activity in the Roblindale Quarry, southern Ontario, 1987-88.

460
GALE, J.E., BRIGGINS, D., McLEOD, R., SCHILLEREFF, S., Van EVERDINGEN, D., Memorial Univ. (Earth Sciences):
Subsurface investigation, Flatrock, Newfoundland, 1987; M.Sc. theses (Briggins, McLeod), Ph.D. theses (Schillereff, Van Everdingen).

461
GALE, J.E., BRIGGINS, D., McLEOD, R., SCHILLEREFF, S., Van EVERDINGEN, D., Memorial Univ. (Earth Sciences):
Continuation of a study of the groundwater in the area of Daniel's Harbour Mine, Newfoundland, 1987-88.

462
HEGINBOTTOM, J.A., Geol. Surv. Can.,
Slope processes and cryogenic movements, Arctic Islands, 1977-.

463
HUDEC, P.P., LARBI, J., Univ. Windsor (Geology):
Beneficiation of concrete aggregates by surface-active agents, 1986-89; M.A.Sc. thesis (Larbi).
Patents covering this work have been applied for, and series of papers will be published as soon as the patents are granted.

464
LUTERNAUER, J.L., Geol. Surv. Can.:
Potential geologic hazards to development – seafloor and shallow subbottom of Queen Charlotte Sound, British Columbia, 1984-.

465
LUTERNAUER, J.L., Geol. Surv. Can.:
Geoarchitecture of the Fraser River delta area, British Columbia, 1986-.
See:
Geoarchitecture, evolution, and seismic risk assessment of the southern Fraser River delta, B.C.; Geol. Surv. Can., Paper 88-1E, p. 105-109, 1988.

466
SAVIGNY, K.W., Univ. British Columbia (Geological Sciences):
Geological controls on mass movements in the Peace River Valley of Alberta and British Columbia, 1986-.

467
SAVIGNY, K.W., BUCHANAN, P.N., Univ. British Columbia (Geological Sciences):
Factors controlling initiation of debris flows, Whatcom Co., WA, 1983-88; M.Sc. thesis (Buchanan).

468
SAVIGNY, K.W., Von SACKEN, R.S.., Univ. British Columbia (Geological Sciences):
The Hope Slide – a continuing geological hazard area and a regional hazard indicator, 1988-; M.Sc. thesis (Von Sacken).
To investigate the distribution and nature of large mass movements affecting transportation corridors linking the interior of British Columbia with the lower mainland; to determine the vulnerability of the corridors to blockage by mass movements; and to prepare a geological hazard map of the corridors.

469
SZOKE, S., Ontario Geol. Surv.:
Aggregate resources inventory program, 1979-.
Information is included in planning strategies and official plans, and forms the basis for discussion of those areas best suited for extraction and for protection for future use. Each report contains a comprehensive assessment of the aggregate resources in the municipality. The best deposits are selected and are delineated on maps showing sand and gravel and bedrock resources. Special projects have also been undertaken in response to particular concerns. The aggregate resources inventory in the Sudbury area is an example of this type of project. Alkali-reactive aggregate from the Sudbury area has caused deterioration in some portland cement structures. An assessment of the area west of Sudbury was undertaken to locate sources of nonreactive aggregate, and a number of close-to-market sources were located.

470
TANGUAY, M.G., BLANCHARD, C., École Polytechnique (Génie minéral):
Carte géotechnique de Laval, Québec, 1983-88; M.Sc.A. (Blanchard).
Etablir la carte géotechnique des sols et du roc pour tout le territoire de Laval, Québec (Ile Jésus).

PERMAFROST/PERGÉLISOL

471
BAKER, T.H.W., GOODRICH, L.E., National Research Council of Canada (Instit. Research in Construction):
Insulation of thaw sensitive slopes in areas of permafrost, 1986-92.
to evaluate the use of wood chips and alternate passive insulation systems to retard thaw of cleared ice-rich permafrost slopes.

472
BAKER, T.H.W., GOODRICH, L.E., PARAMESWARAN, V.R., National Research Council of Canada (Instit. Research in Construction).
Permafrost engineering, 1987-90.
See:
Classification and laboratory testing of artificially frozen ground; ASCE J. Cold Regions Engineering, vol. 1, no. 1, p. 22-48, 1987.

Ground freezing'85 – A summary; Cold Regions Sci. Technology, vol. 13, p. 301-306, 1987.

Failure time in creep; Mechanics of Materials, vol. 6, p. 89-91, 1987.

To improve design and construction techniques for foundations in permafrost.

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BURGESS, M.M., Geol. Surv. Can.:
Permafrost research: Norman Wells pipeline right-of-way, 1987-.

474
GOODRICH, L.E., SVEC, O.J., National Research Council of Canada (Instit. Research in Construction):
A chilled permafrost foundation system using heat pump technology, 1986-91.
To design and evaluate a chilled foundation on permafrost, using heat pump technology.

475
HARRY, D.G., Geol. Surv. Can.:
Properties and distribution of permafrost and ground ice, 1983-.

476
HARRY, D.G., Geol. Surv. Can.:
Characterization of ground ice occurrence in northern Canada, 1984-.

477
HEGINBOTTOM, J.A., Geol. Surv. Can.:
Testing of permafrost soils, 1987-.

478
JUDGE, A.S., Geol. Surv. Can.:
Phase change and the dynamic response of permafrost, 1987-.

479
JUDGE, A.S., Geol. Surv. Can.:
Regional permafrost and ground temperature studies, 1987-.

480
KURFURST, P.J., Geol. Surv. Can.:
Comparison of geotechnical and geophysical properties of arctic seabed sediments, 1982-.
See:
Acoustic tests of seabottom core in Hudson Bay; Geol. Surv. Can., Paper 88-1B, p. 297-299, 1988.

481
LEWKOWICZ, A.G., Univ. Toronto (Erindale College, Geography):
Measurement and simulation of permafrost degradation on slopes, Arctic Canada, 1983-.

482
MICHEL, F.A., Carleton Univ. (Earth Sciences):
Isotope investigations of northern groundwaters, permafrost and related phenomena, 1982-.
The isotopic signature of various types of ground ice, including massive ground ice, have been determined and are being used to interpret the source of water and freezing history of ice bodies for which the origin is unknown.

483
PARAMESWARAN, V.R., BAKER, T.H.W., National Research Council of Canada (Instit. Research in Construction):
Pile foundations in frozen ground, 1986-89.
To improve the design and constructin of pile foundations in permafrost through laboratory and field investigations.

484
TAYLOR, A.E., Geol. Surv. Can.:
Offshore permafrost, Beaufort Sea and Arctic Islands, 1987-.
See:
Shallow sediment temperature perturbations and sediment thermal conductivities, Canadian Beaufort Shelf; Can. J. Earth Sci., vol. 24, no. 11, p. 2223-2234, 1987.

485
TAYLOR, R.B., Geol. Surv. Can.:
Permafrost processes in Arctic beaches, 1983-.

ROCK MECHANICS/MÉCANIQUE DES ROCHES

486
CHAPUIS, R., SILVESTRI, V., SOULIE, M., École Polytechnique (Mineral, Civil):
Capacité portante des fondations superficielles sur argile, 1985-87.
See:
The theoritical bearing capacity of clay under shallow footings: verifying whether it is realistic; Can. Geotechnical J., vol. 25, no. 1, 1988.

Étude des limites d'applicabilité de la théorie de plasticité à des argiles réelles compressibles, soumises éventuellement à des gradients hydrauliques naturels.

487
REEVES, M., UNRAU, J., Univ. Saskatchewan (Geological Sciences):
Scale effects in the testing of evaporite rocks, 1985-; Ph.D. thesis (Unrau).
See:
Long-term testing of evaporites at the Saskatchewan Research Council large scale triaxial test facility; CIMM, 90th Ann. General Meeting, May 1988.

Laboratory tests are being conducted on evaporite rock cores with diameters ranging from 50 to 200 mm. Test include measurements of acoustic velocities, strength and longterm creep behaviour – to identify differences in properties attributable to scale effects.

488
STEAD, D., Univ. Saskatchewan (Geological Sciences):
A study of fracture mechanisms in rock using ultrasonic, scanning electron microscope and mathematical techniques, 1988-.
A study of fracture mechanisms in rock under controlled laboratory stress-strain conditions using the techniques of scanning electron microscopy, acoustic emission, ultrasonic probing and mathematical modelling.

SOIL MECHANICS/MÉCANIQUE DES SOLS

489
CHAPUIS, R., École Polytechnique (Génie minéral):
Relations contrainte-déformation-structure des milieux granulaires, 1986-.

490
HUGHES, O.L., Geol. Surv. Can.:
Surficial geology and land classification, Mackenzie Valley Transportation Corridor, 1971-.

491
LAW, K.T., National Research Council of Canada (Instit. Research in Construction):
Performance of existing earth dams under earthquake conditions, 1986-89.
To develop a methodology to evaluate the stability and deformational characteristics of existing earth dams under earthquake conditions.

492
LAW, K.T., BOZOZUK, M., National Research Council of Canada (Inst. Research in Construction):
Performance of soils as a foundation material, 1987-92.
See:
Undrained strength from piezocone tests; Canadian Geotech. J., vol. 24, p. 392-405, 1987.

Preconsolidation pressure from piezocone tests in marine clays; Geotechnique, vol. 17, no. 2, p. 177-190, 1987.

Designed dynamic strength of Leda clay; Proc. Internat. Symp. Geotechnical engineering of soft soils, Mexico City, vol. 2, 1987.

To develop expertise and understanding of soil as a foundation material through specialized laboratory and field tests and performance monitoring.

493
LAW, K.T., GOODRICH, L.E., National Research Council of Canada (Inst. Research in Construction):
Development of a multi-purpose penetrometer, 1987-89.
To develop a penetrometer for in-situ measurement of mechanical and thermal behaviour of soils.

494
LAW, K.T., ZHU RUIXIANG, National Research Council of Canada (Instit. Research in Construction):
Foundation design of Little Jackfish River Dam, 1986-89.
To study the dynamic behaviour of the Little Jackfish River Dam Site.

495
SVEC, O.J., National Research Council of Canada (Instit. Research in Construction):
Improved road design to minimize frost heave damage, 1987-89.
To develop an improved road design to minimize frost heave damage by applying the knowledge of the physics of frost action.

496
SVEC, O.J., National Research Council of Canada (Instit. Research in Construction):
Direct expansion ground source heat pumps, 1987-90.
To develop and test a new ground source heat pump system based on direct expansion of the refrigerent.

497
SVEC, O.J., PALMER, J.H.L., National Research Council of Canada (Instit. Research in Construction):
Ground heat source/storage, 1987-92.
To achieve an economical ground source/sink for heat pump heating and airconditioning systems.

SNOW AND ICE/NEIGE ET GLACE

498
BOURGEOIS, J.C., Geol. Surv. Can.:
Pollen analysis of snow samples and ice cores, 1987-.

499
FREDERKING, R., National Research Council of Canada (Instit. Research in Construction):
Ice-structure interaction, 1987-92.
See:
Ice loads on a rigid structure with a compliant foundation; POAC'87 Fairbanks, Aug. 1987.

To measure and model ice forces and impacts on structures and to understand the mechanical properties of ice.

500
KOERNER, R.M., Geol. Surv. Can.:
Ice core anlaysis and glacial mass balance, 1987-.

501
LEWKOWICZ, A.G., YOUNG, K., Univ. Toronto (Erindale College, Geography):
Hydrology and environmental significance of a permanent snowbank, Melville Island, Northwest Territories, 1986-. M.Sc. thesis (Young).
Two continuous cores were obtained from the snowbank in 1987, the longer being 5.7 m. Organic detrital material from the base of the cores is being radiocarbon dated to determine the age of the feature. Other aeolian layers in the core will be dated to evaluate periods of snowbank growth and decay.

502
McCLUNG, D.M., SCHAERER, P.A., National Research Council of Canada (Instit. Research in Construction):
Runout distance prediction for application to land use planning on large avalanche paths, 1985-90.
Definition of quantitative prediction methods for extreme runout applied to Canadian conditions.

503
McCLUNG, D.M., SCHAERER, P.A., National Research Council of Canada (Instit. Research in Construction):
Avalanche prediction and control in operation, 1986-89.
See:
The effects of free water on snow gliding; J. Geophysical Res., vol. 92, no. B7, p. 6301-6309, 1987.

Avalanche speed prediction from granular flow concepts; EOS, vol. 68, no. 44, p. 1270, 1987.

To develop guidelines for the application of in situ snow stability tests by operational field personnel.

504
McCLUNG, D.M., SCHAERER, P.A., National Research Council of Canada (Instit. Research in Construction):
Design creep and dynamic loads of snow and avalanches on structures, 1986-90.
Definition of design creep loads fror structures in deep snow covers. Definition of design loads on structures from avalache impact.

505
SAYED, M., FREDERKING, R., SINHA, N.K., National Research Council of Canada (Instit. Research in Construction):
Ice impact forces on structures, 1987-90.
To develop the capability to measure impact forces on structures, to evaluate the ice response and to characterize the behaviour of river ice using in situ devices.

506
SINHA, N.K., BAKER, T.H.W., National Research Council of Canada (Instit. Research in Construction):
Ice as a construction material, 1987-90.
To develop an understanding of the engineering properties of ice relevant to the construction of: offshore and near shore floating ice platforms, grounded ice pads, protective ice structures, ice roads, ice bridges, ice airstrips and winter recreational areas.

507
SINHA, N.K., FREDERKING, R., National Research Council of Canada (Instit. Research in Construction):
Ice failure processes in the vicinity of wide structures, 1987-92.
See:
The Borehole Jack- is it a useful tool?; J. Offshore Mechanics and Arctic Engineering, vol. 109, p. 391-397, 1987.

Recent advances in Ice Mechanics in Canada, Applied Mechanics Review, vol. 40, no. 9, p. 1214-1231, 1987.

Dislocation climb in ice observed by etching and replicating; J. Materials Sci., Dec. 1987.

Experiments on anisotropic and rate sensitive strain ratio and modulus of columnar-grained ice; Proc. Seventh Offshore Mechanics and Arctic Engineering Conf., Houston, Texas, 1988.

Experimental results on the buckling of freshwater ice sheets; ibid., 1988.

Mechanical properties of shelf ice; Proc. Workshop on Extreme Ice Features, NRC Associate Committee on Geotechnical Res., Tech. Memorandum no. 141, p. 67-77, 1987.

Preliminary observations on compressive strength, deformation and Poisson's Ratio of iceberg ice; ibid., p. 413-426, 1987.
To develop the capability to predict ice loads on wide structures.

508
SINHA, N.K., SAYED, M., FREDERKING, R., National Research Council of Canada (Instit. Research in Construction):
Ice forces on lightpiers, 1987-91.
To measure ice forces on the Yamachiche Bend lightpier and to develop a comprehensive predictive model to relate ice forces to structural characteristics and ice conditions.

GLACIOLOGY/GLACIOLOGIE

509
JOHNSON, P.G., Univ. Ottawa (Geography):
Water balance of a glacierized basin. Variability in annual regime, 1986-88.
Ablation of Surging and Downwasting glaciers contributes to basin water balance. Both contributions are highly variable temporally and in magnitude due to the presence of stagnant ice in the basin and the englacial conditions caused by rapid ice movement. Pulses in discharge and sediment load are not necessarily correlated and are impossible to predict.

510
JOHNSON, P.G., KASPER, J., Univ. Ottawa (Geography):
Water and sediment balance of an annually draining ice dammed lake, 1986-88; M.A. thesis (Kasper).
An ice dammed lake on the north margin of the Kaskawulsh Glacier drains annually by the progressive floating of the ice margin. Sedimentation occurs by a combination of underflow processes from basin streams and dispersion mechanisms from the Kaskawulsh glacier. Annual drainage removes possibility of winter layer in rhythmites.

511
BACHU, S., HITCHON, B., PERKINS, E., SAUVEPLANE, C.M., UNDERSCHULTZ, J.R., Alberta Research Council (Geological Survey):
Evaluation of effects of deep waste disposal in Cold Lake area, Alberta and Saskatchewan, 1985-88.
To provide an answer to environmental and water resources management concerns regarding the effects of deep injection of liquid residuals from the in situ oil sands and heavy oil recovery activity int he Cold Lake area. Completed: regional hydrogeology and geothermal regimes, geochemical, geomechanical and hydraulic effects of injection.

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BACHU, S., HITCHON, B., STEIN, R., UNDERSCHULTZ, J.R., Alberta Research Council (Geological Survey):
Feasibility study to determine the possible impact of future bitumen recovery on the subsurface environment at the AOSTRA underground test facility, Alberta, 1988.
To identify, collect and review all pertinent geological, fluid flow, contaminant transport and heat transfer information in order to assess data availability for future impact assessment studies.

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CHAPUIS, R., École Polytechnique (Génie minéral):
Problèmes d'exécution et de réalisation des essais de perméabilité dans du sable. Aspects relatifs au choix du coefficient de forme, 1986-89.
Partie choix du coefficient de forme complétée.

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CHAPUIS, R., BAASS, K., CONTANT, A., École Polytechnique (Minéral, Civil):
Evolution de la conductivité hydraulique des agrégats, 1987-.

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CHAPUIS, R., BEAUDRY, D., École Polytechnique (Génie minéral):
Prédiction de la conductivité hydraulique des mélanges d'étanchéité sol-bentonite, 1987.

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CHAPUIS, R., BERARD, J., École Polytechnique (Génie minéral):
Exploitation en eau souterraine à l'île Perrot, 1986-88; M.Sc.A. (Berard).

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CHAPUIS, R., DUBE, P., CABRAL, A., École Polytechnique (Génie minéral):
Bilans hydrogéologiques dans un parc de résidus miniers, 1987-88.

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CHAPUIS, R., FRECHETTE, P., École Polytechnique (Génie minéral):
Étude par modèle numérique de la propagation de produits organiques dans la zone vadose, à partir d'une source diffuse, 1987.

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CHAPUIS, R., GILL, D.E., CHAMPAGNE, L., École Polytechnique (Génie minéral):
Mesures préventives en hydrogéologie en contaminants, 1987-.

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CHAPUIS, R., GILL, D., SABOURIN, L., WENDLING, G., École Polytechnique (Génie minéral):
Essais d'eau dans les sols. Problèmes d'exécution et d'interprétation, 1987-.
Voir:
Comparaison des valeurs de conductivité hydraulique obtenues soit par essais de pompage soit par essais de laboratoire; Proc. 40th Can. Geotechnical Conf., Regina, p. 291-300, 1987.

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CHAPUIS, R., SABOURIN, L., École Polytechnique (Génie minéral):
Vérification du scellement hydraulique des piézomètres et des puits.
Voir:
Piézomètres et risques d'erreur associées; Proc. Workshop in Soil Beniers, Montreal, 1987.

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CHAPUIS, R., SABOURIN, L., École Polytechnique (Génie minéral):
Influence de la méthode de forage et de la méthode de scellement sur le niveau d'eau statique fourni par un piézomètre, 1986-87.

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FOSTER, H.D., NORIE, I., SNOW, S., SMITH, S., Univ. Victoria (Geography):
Possible links between bulk and trace elements in soil and water and disease, 1984-.
See:
Disease Family Trees: The possible roles of iodine in goitre, cretinism, multiple sclerosis, amyotrophic lateral sclerosis, Alzheimer's and Parkinson's Diseases and cancers of the thyroid, nervous system and skin; Medical Hypotheses, vol. 24, p. 249-263, 1987.
Progress being made at School District scale in British Columbia and country scale in U.S.A.

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FREEZE, R.A., SPERLING, A., JAMES, B., Univ. British Columbia (Geological Sciences):
Risk-based engineering design in hydrogeological and geotechnical projects, 1987-90; Ph.D. theses (Sperling, James).
See:
Groundwater contamination from waste management sites, Parts I and II; Water Resources Res., vol. 23, p. 351-367, 1987.
A risk-cost-benefit framework for the deisgn of dewatering systems in open-pit mines; Proc. 28th Symp. on Rock Mechanics, p. 999-1007, 1987.

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HITCHON, B., SAUVEPLANE, C.M., UNDERSCHULTZ, J.R., Alberta Research Council (Geological Survey):
Hydrogeology, geothermal regime, geopressures and hydrocarbon occurrences, Beaufort-Mackenzie Basin, 1984-88.

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MICHEL, F.A., Carleton Univ. (Earth Sciences):
Evaluation of potential bedrock aquifers for large industrial users in the Ottawa area, Ontario-Quebec, 1986-.
As an energy conservation measure, the potential of using groundwater in the Ottawa area for heating and cooling purposes by large industrial users is being investigated.

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SMITH, L., Univ. British Columbia (Geological Sciences):
Estimation of fracture aperture using hydraulic and traces tests, 1986-.

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SMITH, L., CLEMO, T., Univ. British Columbia (Geological Sciences):
Development of dual permeability models for fractured media, 1987-; Ph.D. thesis (Clemo).

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SMITH, L., FORSTER, C., Univ. British Columbia (Geological Sciences):
Hydrologic and thermal regimes of mountainous terrain, 1984-87; Ph.D. thesis (Forster).

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SMITH, L., WOODBURY, A., Univ. British Columbia (Geological Sciences):
Simultaneous inversion of hydrogeologic and thermal data, 1985-878; Ph.D. thesis (Woodbury).
See:
Simultaneous inversion of hydrogeologic and thermal data 1. Theory and application using hydraulic head data; Water Resources Res., vol. 23, no. 8, 1987.

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TOTH, J., ORPHORI, D., BARSON, D., HOLYSH, S., OTTO, K., PARKS, K., ROSTRON, B., THOMPSON, J., Univ. Alberta (Geology):
Development of a hydrogeological approach to petroleum exploration, 1985-88; Ph.D. theses (Barson, Otto), M.Sc. theses (Holysh, Parks, Rostron, Thompson).
See:
Groundwater and hydrocarbon migration; Decade of North American Geol., vol: Hydrogeology, Geol. Soc. Amer., p. 435-448, 1987.

Petroleum hydrogeology: A potential application of groundwater science; J. Geol. Soc. India, vol. 29, p. 172-179, 1987.

Petroleum hydrogeology: A new basic in exploration; World Oil, vol. 205, no. 3, p. 48-50, 1987.

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VAN DER KAMP, G., CHERRY, J.A., KELLER, C.K., Saskatchewan Research Council (Sedimentary Resources), Univ. Waterloo (Earth Sciences):
Flow of groundwater in tills, 1983-87; Ph.D. thesis (Keller).
See:
Hydrogeology of two Saskatchewan tills: I. Fractures, bulk permeability, and spatial variability of downward flow; J. Hydrology, 1988.

Hydrogeology of two Saskatchewan till: II. Occurrence of sulfate and implications for soil salinity; J. Hydrology, 1988.

The project has concentrated on flow and geochemistry of groundwater in tills within recharge environments. Emphasis is now shifting to discharge environments and to implications for groundwater resource management.

MARINE GEOSCIENCE/OCÉANOGRAPHIE

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ALTON, M.C.C., HERZIG, P.M., SCOTT, S.D., Univ. Toronto (Geology), Rwth Aachen Univ. (FRG):
Geology of the central Indian Ridge north of the Rodriguez Triple Junction, western Indian Ocean, 1987-89; M.Sc. thesis (Alton).
The geology of a portion of the central Indian Ridge is being compiled and interpreted from the results of the Gemino series of expeditions by the German research vessel 'Sonne'.

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BUCKLEY, D.E., Geol. Surv. Can.:
Environmental geology of the deep ocean, 1979-.

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CARBOTTE, S.M., DIXON, J.M., FARRAR, E., DAVIS, E.E., RIDDIHOUGH, R.P., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
The geological and geophysical charcteristics and geotectonic significance of the Tuzo Wilson Knolls, 1984-88; M.Sc. thesis (Carbotte).

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CHASE, R.L., MICHAEL, P.J., ALLAN, J.F., Univ. British Columbia (Geological Sciences):
Explorer Ridge, northeast Pacific seafloor sulphides: Relation to host basalts sulfides and associated volcanism in the Woodlark Basin.

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D'ANGLEJAN, B., LORRAIN, S., GONTHIER, N., RAMESH, R., McGill Univ. (Geological Sciences):
Studies in coastal and estuarine sedimentation in subarctic regions, 1987-90; M.Sc. theses (Lorrain, Gonthier), Ph.D. thesis (Ramesh).
See:
Changes in sedimentation following river diversion in the Eastmain Estuary (James Bay), Canada; J. Coastal Res., vol. 3, no. 4, p. 457-468, 1987.

Work is underway on: 1) offshore Quaternary stratigraphy and sedimentology in the Great Whale River area, following CSS Hudson cruise #87-028, August 1987 - Gonthier); 2) suspended sediment flux, St. Lawrence estuary - Lorrain); and 3) changes in composition and early diagenesis in submerged Champlain Sea clays - St. Lawrence estuary - Ramesh).

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FADER, G.B., Geol. Surv. Can.:
Nearshore sediments and non-fuel minerals, 1987-.

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FORBES, D.L., Geol. Surv. Can.:
Sediment dynamics and depositional processes in the Coastal Zone, 1982-.

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HERZIG, P.M., SCOTT, S.D., Univ. Toronto (Geology), Rwth Aaschen Univ. (FRG.):
Comparison of the Tag and Explorer seafloor hydrothermal fields with the Cyprus massive sulfide deposits, 1987-88.

A detailed field and mineralogical comparison is being made between two major seafloor sulfide sites and the massive sulfide ores of Cyprus.

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JOSENHANS, H.W., Geol. Surv. Can.:
Surficial geology, geomorphology and glaciology of the Labrador Shelf, 1981-.

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JOSENHANS, H.W., Geol. Surv. Can.:
Surficial geology, geomorphology and glaciology of Hudson Bay, 1987-.

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LEWIS, C.F.M., Geol. Surv. Can.:
Ice scouring of Continental Shelves, 1979-.

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LOGAN, A., EAKINS, K., COLLINS, J., Univ. New Brunswick, Saint John (Geology):
Ecology and behaviour of the Recent solitary corals *Scolymia cubensis* and *Scolymia lacera* from Bermuda and the West Indies, 1986-88; M.Sc. theses (Eakins, Collins).
See:
Budding and fusion in the scleractinian coral *Scolymia cubensis* from Bermuda; Bull. Marine Sci., vol. 42, no. 1, 1988.

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MacLEAN, B., Geol. Surv. Can.:
Eastern Baffin Island shelf bedrock and surficial geology mapping program, 1976-.

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McCONACHY, T.F., SCOTT, S.D., MOTTL, M.J., Univ. Toronto (Geology), Hawaiian Inst. Geophysics:
Formation and dispersal of hydrothermal plumes over spreading ridges of the northeastern Pacific Ocean, 1984-88; Ph.D. thesis (McConachy).
See:
Real-time mapping of hydrothermal plumes over southern Explorer Ridge, northeastern Pacific Ocean; Marine mining, vol. 6, p. 181-204, 1987.

Near- and far-field chemical and physical processes have been determined for bouyant hydrothermal plumes at 11°N and 21°N East Pacific Rise and at Explorer Ridge in order to model the dispersal of trace elements.

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MACNAB, R., Geol. Surv. Can.:
Ocean mapping, 1987-.

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MORAN, K., Geol. Surv. Can.:
Marine geotechnical studies of the Canadian Eastern and Arctic Continental shelves and slopes, 1985-.

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MUCCI, A., McGill Univ. (Geological Sciences):
Formation and stability of $MnCO_3$-$MgCO_3$-C_2CO_3 solid-solutions, 1987-.
Manganese uptake during calcite precipitation from seawater: Conditions leading to the formation of a pseudo kutnahorite.

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MUCCI, A., PAGÉ, P., POIRIER, J., McGill Univ. (Geological Sciences), Univ. Québec à Montréal (Sciences de la terre):
Indices géochimiques de paléosalinité en zones affectées par le glacio-isostasie, 1987-; thèse de maitrise (Poirier).
See:
The water chemistry of cruise 85-036 Bras d'Or Lake, Cape Breton Island, Nova Scotia; Geol. Surv. Can., Paper 87-1A, p. 17-24, 1987.

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MUCCI, A., ZHONG SHAOJUN, McGill Univ. (Geological Sciences):
Kinetic constraints on the precipitation of calcite and aragonite from seawater: Influence of temperature and salinity, 1986-88.

See:
Influence of temperature on the composition of magnesian calcite overgrowths precipitated from seawater; Geochim. Cosmochim. Acta, vol. 51, p. 1977-1984, 1987.

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PARROTT, R., Geol. Surv. Can.:
Engineering geology of the Atlantic Shelf, 1983-.

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PEREIRA, C.P.G., Memorial Univ. (Earth Sciences):
High latitudes marine geology: Canadian Arctic East Coast Canada and Weddell Sea, Antarctica, 1984-.

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PIPER, D.J.W., Geol. Surv. Can.:
Quaternary geologic processes on continental slopes, 1981-.
See:
The source and origin of the 1929 Grand Banks turbidity current inferred from sediment budgets; Geo-marine Letters, vol. 7, no. 4, p. 177-182, 1987.

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PIPER, D.J.W., Geol. Surv. Can.:
Facies models of modern turbidites, 1983-.

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SCHAFER, C.T., Geol. Surv. Can.:
Temporal and spatial variation of deep ocean currents in the western Labrador Sea, 1983-.

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SCOTT, S.D., BINNS, R.A., BENES, V., Univ. Toronto (Geology), CSIIRO, North Ryde, Australia:
Geology and tectonics of western Woodlark Basin, southwest Pacific Ocean, 1986-90; Ph.D. thesis (Benes).
See:
Western Woodlark Basin: Potential analog setting for volcanogenic massive sulphide deposits; Proc. Pacific Rim Congress 87, p. 531-535, 1987.

The spreading Atis of a young marginal basin is propagating into a continental margin generating ferrobasalt, andesite and rhyolite volcanism and hydrothermal activity.

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SCOTT, S.D., CHASE, R.L., Univ. Toronto (Geology), Univ. British Columbia (Geological Sciences):
Tectonics, petrology and sulfide deposits of Explorer Ridge, Tuzo Wilson Seamounts and west valley of Juan de Fuca Ridge, 1984-89.
Detailed study of active and fossil hydrothermal vent sites off Canada's west coast is revealing tectonic controls and petrologic characteristics of modern analogs for massive sulfide deposition.

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TAYLOR, R.B., Geol. Surv. Can.:
Coastal environments and processes in the Canadian Arctic Archipelago, 1982-.

MINERAL/ENERGY GEOSCIENCE/SCIENCES DE LA TERRE APPLIQUÉES AUX MINÉRAUX ET À L'ÉNERGIE

COAL GEOLOGY/ GÉOLOGIE DU CHARBON

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CAMERON, A.R., Geol. Surv. Can.:
Petrographic examination of coking coals from the Kootenay Group, Alberta and British Columbia, 1961-.

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CAMERON, A.R., Geol. Surv. Can.:
Relationship of reflectance to chemical rank parameters of western Canadian coals, 1979-.

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CAMERON, A.R., Geol. Surv. Can.:
Regional coal rank variations in the Kootenay Formation and their relationship to the structural history of the southern Canadian Rocky Mountains, British Columbia-Alberta, 1981-.

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CAMERON, A.R., Geol. Surv. Can.:
Petrographic analyses of coals in the Saunders Group, Outer Foothills Belt, Alberta, 1983-.

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CAMERON, A.R., Geol. Surv. Can.:
Coal - Paleozoic, Mesozoic and Tertiary, western District of Mackenzie and northern Yukon Territory, 1985-.
See:
Compositional characteristics of anthracitic coals in the Hoidahl Dome area, northern Yukon Territory; Geol. Surv. Can., Paper 88-1D, p. 67-74, 1988.

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DAWSON, F.M., Geol. Surv. Can.:
Resource evaluation and geology of coal deposits of western Canada, 1976-.
See:
Stratigraphic framework and depositional setting, Judy Creek Coalfield, northern Alberta; Geol. Surv. Can., Paper 88-1D, p. 121-128, 1988.

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DAWSON, F.M., Geol. Surv. Can.:
Coal geology and resource potential of the Wapiti Group of north-central Alberta, 1987-.

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DAWSON, F.M., Geol. Surv. Can.:
Coal geology and resource potential of the Luscar Group - Phase I, 1987-.

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GOODARZI, F., Geol. Surv. Can.:
Mineral matter and trace element content of Canadian coals, Alberta, 1978-.
See:
Preliminary source rock evaluation of the Nordegg Member (lower Jurassic), Alberta; Geol. Surv. Can., Paper 88-1D, p. 51-56, 1988.

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GRIEVE, D.A., . British Columbia Ministry Energy, Mines, Petrol. Res.:
Elk Valley coalfield, north half.
Studies will concentrate on surface traces of coal seams, formation contacts, structural features and detailed description of stratigraphic sections. Grab sampling of coal from outcrop locations and core will allow determination of petrographic rank distribution and preliminary assessment of coal quality.

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HACQUEBARD, P.A., Geol. Surv. Can.:
Rank and petrographic studies of coal and organic matter dispersed in sediments, 1968-.

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HUGHES, J.D., Geol. Surv. Can.:
Resource evaluation and geology of Canadas coal deposits, 1981-.

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JERZYKIEWICZ, T., Geol. Surv. Can.:
Sedimentological studies of coal-bearing Upper Cretaceous and Paleocene formations, Alberta Foothills and Plains, 1981-.

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JERZYKIEWICZ, T., Geol. Surv. Can.:
Stratigraphy and sedimentology of coal-bearing Wapiti Group in the Grande Cache - Grande Prairie area, Alberta, 1987-.

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JERZYKIEWICZ, T., Geol. Surv. Can.:
Paleoclimate of late Cretaceous and early Paleocene in Alberta and Inner Mangolia, northern China, 1987-.

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KALKREUTH, W.D., Geol. Surv. Can.:
Optical properties of coals and dispersed organic materials, 1975-.

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KALKREUTH, W.D., Geol. Surv. Can.:
Regional coalification studies in the Minnes, Bullhead and Fort St. John groups, northeastern British Columbia, 1981-.

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KALKREUTH, W.D., Geol. Surv. Can.:
Conversion properties of selected coals and oil shales in relation to geological age, geological setting and petrographic composition, 1986-.
See:
Organic petrology and geochemical (rock-eval) studies on oil shales and coals from the Pictou and Antigonish areas, Nova Scotia, Canada; Bull. Can. Petrol. Geol., vol. 35, no. 3, p. 263-295, 1987.

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KOO, J.,British Columbia Ministry Energy, Mines, Petrol. Res.:
Economic coal geology of the Bowser Basin, 1982-88.
Emphasis on the stratigraphy, depositional environments, deformational structures, coal seam characteristics, and deposit types of the coal deposits and occurrences in the Bowser Basin.

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LANGENBERG, C.W., MACDONALD, D.E., STROBL, R.S., BAHNSEN, P.B., Alberta Research Council (Geological Survey):
Foothills and Mountains coal quality – A local study.
To make a detailed study of coal quality variations in a structurally deformed coal-bearing sequence in order to establish baselines for procedures to assess coal quality, and comparison of coal quality data between different areas of mountains and foothills.

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LEGUN, A., British Columbia Ministry Energy, Mines, Petrol. Res.:
Coal trends in the Gething Formation.
In 1987 field section measurement will be completed, borehole and log data will be compiled and coal trend maps produced.

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MACDONALD, D.E., LANGENBERG, C.W., McCABE, P.J., RICHARDSON, R.J.H., STERENBERG, C.E., Alberta Research Council (Geological Survey):
A regional evaluation of coal quality in the foothills and mountains of Alberta, 1987-89.
Progress: Southern half of project completed and published as Alberta Geological Survey Open File Report 1987-9. To document and provide a geological understanding of the variation in coal quality parameters in the foothills/mountains regions of Alberta. The range of values for major coal qulaity components will be delineated on a stratigraphic and geographic basis.

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RICKETTS, B.D., Geol. Surv. Can.:
Stratigraphic and coal resource analyses of coal bearing basins of Arctic Canada, 1985-.

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SMITH, G.G., Geol. Surv. Can.:
Resource evaluation and geology of coal deposits of western and northern Canada, 1983-.

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STROBL, R.S., RICHARDSON, R.J.H., MACDONALD, D.E., WONG, R.K.W., KRZANOWSKI, R.M., CHIDAMBARAM, N., Alberta Research Council (Geological Survey):
Quality of Alberta Plains coal, 1987-89.
To quantify the degree of variability in coal quality for the Drumheller (Horseshoe Canyon Formation) and Ardley (Paskapoo Formation) coal zones. To develop an understanding of the factors controlling the quality of these coals and to test predictive models.

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VAN DER FLIER-KELLER, E., Univ. Victoria (Geography):
Specialised element potential and inorganic matter content of the Nanaimo and Comox coalfields, British Columbia, 1987-.
See:
Inorganic matter content and specialised element potential of the Nanaimo and Comox coalfields, Vancouver Island; British Columbia Ministry Energy, Mines, Petrol. Res. Paper 1988-1, p. 435-439, 1988.
Geochemical and mineralogical variations between the major coal basins on Vancouver Island – tectonic controls on geochemistry.

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VAN DER FLIER-KELLER, E., Univ. Victoria (Geography):
Platinum potential of the Tulameen coal deposit, southwestern British Columbia, 1987-.
Occurrence and distribution ofthe platinum gorup elements in coal. Comparison of PGE systematics in coals adjacent to a platinum rich ultramafic complex with other intermontane coals.

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WRIGHTSON, B., British Columbia Ministry, Energy, Mines, Petrol. Res.:
Digital coal deposit modelling.
Deposit models of Mt. Klappan, Quintette, Bullmoose and selected others will be constructed or updated and maintained in operational format.

INDUSTRIAL MINERALS/ SUBSTANCES MINÉRALES INDUSTRIELLES

588
BERARD, J., BLANCHETTE, A., École Polytechnique (Génie minéral):
Essais accélérés en vue de déterminer le potentiel de réactivité alcalis-granulats, 1987-89; M.Sc.A. (Blanchette).
Quinze types de roches sont présentement à l'étude en vue de vérifier s'il est possible de détecter, en moins de 2 semaines, le potentiel de réactivité alcaline des granulats à béton. Les essais en cours sont encourageants mais ne semblent pas d'application universelle.

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BERARD, J., DURAND, B., École Polytechnique (Génie minéral):
Le rôle des additifs minéraux sur la réactivité alcalis-granulat dans les bétons, 1985-88; thèse de doctorat (Durand).
Voir:
Use of gel composition as a criterion for diagnosis of Alkalis-aggregate reactivity in concrete; Rilem, Matériaux et contruction, vol. 20, p. 39-43, 1987.
Certains ajouts minéraux ont la propriété de réduire l'expansion du béton lorsque celuici contient des granulats réactifs. Nous connaissons quels sont les additifs efficaces et nous étudions les produits de réaction chimique responsable de la réduction des expansions.

590
BUTEAU, P., Ministère de l'Énergie et des Ressources du Québec:
Inventaire des toubrières de la Montérégie, Québec, 1987-90.
Les travaux de l'été 1987 constituent la première étape d'un programme de trois ans visant à cartographier les tourbières du Sud du Québec à l'échelle de 1:50 000. En 1987, les tourbières cartographiées sont celles du Sud de Montréal et du bassin versant de la rivière Richelieu. Le territoire couvre les feuillets SNRC 31G/1, 31H/3, 31H/4, 31H/5, 31H/6 et 31H/11.

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BUTEAU, P., LE GROUPE DRYADE LTÉE:
Ministère de l'Énergie et des Ressources du Québec:
Inventaire des tourbières de Matagami, Québec, 1987-88.
Début d'un programme d'inventaire systématique des tourbières du Québec septentrional à partir d'une méthode basée sur la télédétection. Le territoire visité en 87 correspond aux feuillets SNRC 32E/9, 32E/10, 32E/11, 32E/14, 32E/15 et 32E/16.

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BUTRENCHUU, S.B., British Columbia Ministry Energy,Mines, Petrol. Res.:
Evaluation of gypsum resources in British Columbia, 1988-89.

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CHRISTIE, R.L., Geol. Surv. Can.:
Geology of bedded phosphate deposit in Canada, 1976-.

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DERRY, MITCHENER, BOOTH AND WAHL, Geological Consultants (Toronto), Ontario Geol. Surv.:
Limestone industries of Ontario, 1986-88.
Under the co-ordination of the Ministry of Natural Resources (Ontario) this is a geological/production investigation of the limestone industries of Ontario. All active limestone/dolostone quarries in Ontario are being reported.

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DEWLIW, O., SCHULZE, D., Queen's Univ. (Geological Sciences):
Petrology of ultramafic diatremes, Golden area, British Columbia, 1987-89; M.Sc. thesis (Dewliw).

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EDWARDS, W.A.D., PRICE, M., Alberta Research Council (Geological Survey):

Construction aggregate survey and projection study.

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FOURNIER, B., JACOB, H-L., Ministère de l'Énergie et des Ressources du Québec:
Granulats à béton des basses-terres du Saint-Laurent, Québec, 1987-88.
Évaluer les caractéristiques des granulats. Identifier les éléments nuisibles à leur durabilité. Étudier les mécanismes de détérioration ainsi que l'action des intempéries et des sels de déglacage.

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HAMILTON, W.N., Alberta Research Council (Geological Survey):
Filler-grade limestone study, 1985-87.
Follow-up to previous literature study of Alberta limestones and potential sources of calcium carbonate filler: evaluates prospective deposits identified for field checking and testing. Data acquired provide conclusive evaluation of filler potential.

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HAMILTON, W.N., SCAFE, D.W., Alberta Research Council (Geological Survey):
Filler potential of Alberta kaolins, 1987-88.
Study is follow-up to a more general kaolin evaluation study completed 1985. It involves further and more intensive tests on optimum Alberta kaolins identified in previous study, for unequivocal evaluation of paper filler potential.

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HAYNES, S.J., Brock Univ. (Geological Sciences):
Gypsum deposits of southern Ontario, 1986-.
See:
Lead isotope ratios in Niagara Escarpment rocks and galenas; Can. J. Earth Sci., vol. 24, no. 8, p. 1625-1633, 1987.
Description of deposits and their stratigraphic position in the Salina Formation. Textural analysis of deposits and modelling of sedimentary and diagenetic processes.

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HOWSE, A.F., DELANEY, P.W., Newfoundland Dept. Mines and Energy:
Assessment of Newfoundland's marble resource, 1985-88. Assessment of Insular Newfoundland's dolomite resource, 1987.
See:
Marble assessment project – 1987; Newfoundland Dept. Mines, Report 88-1, 1988.
Dolomite evaluation project – 1987; ibid., p. 145-149, 1988.
To determine the potential industrial value of our marble deposits with particular emphasis on such uses as mineral fillers and whiteners. The project identified several such deposits that are currently undergoing further assessment by industry. To identify dolomite deposits suitable for metallurgical application, i.e., primarily as a source of magnesium metal and magnesium oxide.

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LANGFORD, F.F., RENAUT, R.W., BOYS, C., UTHA-AROON, C., Univ. Saskatchewan (Geological Sciences):
Sedimentology, stratigraphy and diagenesis of the Prairie Evaporite in central Saskatchewan, 1985-; M.Sc. theses (Boys, Utha-Aroon).

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MEYER, J.R., DEAN, P.L., Newfoundland Dept. Mines and Energy:
Industrial minerals in Labrador.
See:
Industrial mineral operations and opportunities in Newfoundland and Labrador growing links with the U.S. Eastern Seaboard; Proc. 8th Industrial Mineral Internat. Congr., Boston 1988.

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PELL, J., British Columbia Ministry Energy, Mines, Petrol. Res.:
Evaluation of fluorspar resource potential in British Columbia, 1988-89.

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READ, P., GREEN, K., British Columbia Ministry Energy, Mines, Petrol. Res.:
Industrial minerals potential of Tertiary basins, British Columbia, 1986-90; M.Sc. thesis (Green).

606
SCAFE, D.W., Alberta Research Council (Geological Survey):
Ceramics raw material (Guyana), 1986-88.
To characterize Guyana coastal clays and determine their usefulness as ceramic raw materials.

607
SCAFE, D.W., EDWARDS, D., BOISVERT, D., Alberta Research Council (Geological Survey):
Sand and gravel resources of the Ft. McMurray map area, Alberta. Sand and gravel resources of the Chinchaga River map area, Alberta, 1987-88.
The Aggregate Inventory of Alberta generates an inventory of sand and gravel resources of the province through synthesis of existing data from various sources and new field data.

608
SEAMAN, A.A., New Brunswick Natural Res., Energy (Mineral Res. Div.):
Granular aggregate resources in parts of southern New Brunswick, 1986-88.
To complete the granular aggregate inventory of the Province of New Brunswick, by mapping and evaluating the granular aggregate resources in the remaining unmapped 1:50 000 scale NTS map areas.

609
SIMANDL, G., VALIQUETTE, G., École Polytechnique (Génie minéral):
Caractérisation des gîtes de graphite de la vallée de la Gatineau, Québec, 1984-88; thèse de doctorat (Simandl).
L'étude vise à caractériser les gîtes de graphite de la vallée de la Gatineau selon des critères structuraux pétrologiques et géochimiques. Définir la genèse des différents types de gîtes et établir des guides d'exploration pour la découverte de nouveaux gîtes. Plusieurs nouveaux gîtes ont été découverts à la suite de ces travaux.

610
WHITE, G., British Columbia Ministry Energy, Mines, Petrol. Res.:
Wollastonite resources in British Columbia, 1988-89.

611
WOLF, R.R., Ontario Geol. Surv.:
Abandoned limestone quarry guide, Ontario, 1987-88.
An inventory of abandoned limestone quarries in Ontario, documenting approximately 750 abandoned quarries, and highlight 150 with more detailed reporting. Information presented will include geology, location, historical significance and present status.

MINERAL DEPOSITION EXPLORATION/EVALUATION/ RECHERCHE ET ÉVALUATION DES GÎTES MINÉRAUX

612
BEAUDOIN, A., PERRAULT, G., HUBERT, C., École Polytechnique (Génie minéral):
Pétrographie, géochimie et structure du gîte Callahan, district de Val d'Or, Québec, 1986-88; thèse de doctorat (Beaudoin).
Ce projet a pour objet: 1) la définition de la géologie structurale du gîte Callahan; et 2) la définition pétrographique et géochimique de la roche primaire et de l'altération associée à la minéralisation aurifère. Les études structurales sont avancées.

613
BEAUDOIN, G., LAURENT, R., CLARK, T., Université Laval (Géologie), Ministère de l'Énergie et des Ressources du Québec:
Étude pour les éléments du groupe du platine, partie sud de la Fosse du Labrador, Québec, 1987-88.
Pétrologie des intrusions ultramafiques, comportement des platinoïdes pour la région du lac Retty au nord-est de Schefferville.

614
BONNEAU, R.M., ROCHELEAU, M., VERPAELST, P., Université Laval (Géologie), UQAT:
Étude métallogénique de la Formation de Hunter Mine, région de Rouyn, Abitibi, Québec, 1986-88; thèse de maîtrise (Bonneau).

615
BOURGAULT, G., PERRAULT, G., École Polytechnique (Génie minéral):
Étude de la carbonatisation et de la minéralisation aurifère – indice Swanson, Barraute, Québec, 1985-88; M.Sc.A. (Bourgault).
Bourgault a inventé un nouveau modèle inspiré de celui de Gresens (1967) pour analyser le métasomatisme associé à une intrusion felsique dans des roches volcaniques mafiques et ultramafiques.

616
BRISTOL, C.C., Univ. (Geology):
Chlorites and carbonate minerals from the Tartan Lake Gold Mine, Flin Flon, Manitoba, 1987-.

617
BRISTOL, C.C., FROESE, E., *Brandon Univ. (Geology), Geol. Surv. Can.:
The Osborne Lake orebody: effects of high grade regional metamorphism on alteration associated with volcanogenic massive sulphide mineralization, 1984-88.
Uppermost amphibolite grade metamorphism of the alteration zone has produced two assemblages: cordierite-anthophyllite-staurolite and chlorite – biotite. These have been interpreted as originating as chloritic rocks, common to massive sulphide deposits.

618
ČERNÝ, P., CHACKOWSKY, L.E., MEINTZER, R.E., Univ. Manitoba (Geological Sciences):
Mineralogy, geochemistry and petrology of rare-element pegmatites and related granites in northeastern Manitoba, 1983-89; M.Sc. thesis (Chackowsky).
See:
A unique lithoprobe mineralization of pegmatitic granites at Red Sucker Lake, northeastern Manitoba; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 30, 1987.

Current research aimed at the Magill Lake granite and associated pegmatites; follow-up work on material from Cross Lake, Red Sucker Lake and Gods Lake. In cooperation with B.J. Fryer (Memorial), F.J. Longstaffe (Western) and H. Baadsgaard (Alberta)

619
ČERNÝ, P., MEINTZER, R.E., WISE, M.A., CLARK, G.S., Univ. Manitoba (Geological Sciences):
Mineralogy, geochemistry and petrology of rare-element pegmatites and related granites in the Yellowknife field, Northwest Territories, 1980-88; Ph.D. theses (Wise, Meintzer).

620
CHARTRAND, F., BROWN, A.C., Ministère de l'Énergie et des Ressources du Québec, Ecole Polytechnique (Génie minéral):
Genesis of sediment – hosted stratiform copper deposits, 1987-88.
Voir:
Base metal mineralization in peritidal carbonates of the Redstone stratiform copper deposit; Colloque ENSMP-BRGM, Mar. 29-30, Orleans, France, 1988.

Cette étude concerne la diagénèse et la minéralisation des dépôts stratiformes de cuivre de Redstone (T. du N.O.), ainsi que les gisements cupro-cobaltifères de Kamoto (Zaire) et de Chambishi SE (Zambie).

621
CHEVÉ, S., BROUILLETTE, P., CLARK, T., INRS (Géoressources):
Reconnaissance géologique et métallogénie de l'or dans le Complexe d'Ashanipi (au nord-ouest de Schefferville), Québec, 1987-90.
Reconnaissance et synthèse géologique du territoire visé par la cartographie. Evaluation métallogénique des indices aurifères du Complexe d'Ashanipi au nord-ouest de Schefferville.

622
CHURCH, B.N., GABA, R.G., British Columbia Ministry Energy, Mines, Petrol. Res. (Geological Survey Branch):
Geology and mineralization in the Bridge River mining camp (92J/15, 92O/2, 92J/10), British Columbia, 1986-.
See:
Geological reconnaissance in the Bridge River mining camp; British Columbia Ministry of Energy, Mines, Petrol. Res., Paper 1988-1, p. 93-100, 1988.

To re-evaluate the mineralization and geology of the Bridge River mining camp in the light of new mining exploration activity in the area, and to elucidate the lithology and structural setting of the region providing a base and targets for further mineral investigations and prospecting.

623
COUTURE, J-F., GUHA, J., Université du Québec à Chicoutimi:
Géologie du gisement Au-Cu de la rivière Eastmain, Nouveau-Québec, 1986-89; thèse de doctorat (Couture).
Voir:
Géologie de la bande volcanosédimentaire de la rivière Eastmain Supérieure; Ministère de l'Énergie et des Ressources du Québec, DV 87-25, p. 116-118, 1987.

624
DARLING, R., École Polytechnique (Génie minéral):
Geology of the Dumont gold deposit, Belmoral Mines Ltd., Val d'Or, Québec, 1986-.

625
DARLING, R., LACROIX, S., École Polytechnique/(Génie minéral):
La gîtologie et la genèse du Cu-Ni dans la région du lac Aulneau, Fosse du Labrador, 1983-; M.Sc.A. (Lacroix).

626
DARLING, R., VU, L., DUSSAULT, C., WAITZENEGGER, B., École Polytechnique (Génie minéral):
Geology of the Ferderber gold deposit, Belmoral Mines Ltd., Val d'Or, Québec, 1983-.
See:
Structure of the Ferderber gold deposit, Belmoral Mines Ltd., Val d'Or, Québec; CIM Bull. vol. 80, p. 68-77, 1987.

627
DAVID, M., JUTRAS, M., École Plytechnique (Génie minéral):
Étude géostatistique de la mine Doyon, canton Bousquet, Québec, 1984-88; M.Sc.A. (Jutras).
L'estimation par géostatistique a l'avantage de diminuer l'importance accordée aux très fortes teneurs par rapport aux méthodes conventionnelles d'estimation des réserves. Cela augmente beaucoup la precision des estimés, en particulier dans des gisements d'or où l'on recontre des distributions de teneurs très assymétriques. Connaissant l'historique de production de la mine Doyon, on aura la possibilité de quantifier ce gain en précision. Le travail de recherche est terminé, seule la rédaction reste à faire.

628
DEVLIN, B., GODWIN, C., Univ. British Columbia (Geological Sciences):
Geology of the Dolly Varden Camp, northwestern British Columbia, 1985-87; M.Sc. thesis (Devlin).
Deposits were not a Tertiary, epithermal vein, but were Jurassic and volcanogenic – exhalitive. Zoning from sulphid (Dolly Varden) through carbonate (Northotar) to oxide (Torbrit) is classical and expressed over 1 km. Block-faulting offsets.

629
DILABIO, R.N.W., Geol. Surv. Can.:
Drift prospecting methods and models, 1978-.
See:
The Quaternary stratigraphy of the Timmins area, Ontario, as an aid to mineral exploration by drift prospecting; Geol. Surv. Can., Paper 88-1C, p. 61-66, 1988.

An ultramafic dispersal train and asociated gold anomaly in till near Osik Lake, Manitoba; ibid., p. 67-72, 1988.

630
DUNSMORE, H.E., Geol. Surv. Can.:
Geology of uranium resources of Canada, 1976-.

631
ETTLINGER, A.D., RAY, G.E., British Columbia Ministry Energy, Mines, Petrol. Res.:
Gold-enriched skarns of British Columbia; Ph.D. thesis (Ettlinger).
Ultimately all work will be incorporated into thesis at Washington State University with appropriate acknowledgement to the British Columbia Geological Survey.

632
FUCHTER, W.A.H., HODGSON, C.J., Queen's Univ. (Geological Sciences):
The geology and gold mineralization of the northwestern mining camp, Gwanda greenstone belt, Zimbabwe, 1985-88; Ph.D. thesis (Fuchter).
See:
Gold deposits of the northwestern mining camp, Gwanda greenstone belt, Zimbabwe; Proc. Gold '86, 1986.

633
GABITES, J., BROWN, D., LOGAN, J., HOY, T., GODWIN, C., Univ. British Columbia (Geological Sciences):
Lead isotope study of deposits in Nelson Batholith and in adjacent Rossland Group, British Columbia, 1987-89.
See:
Three vein types within the Nelson Batholith, south-central British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, 1988.

Three types of vein deposits defined, with Pb-Pb, in the Nelson Batholith.

634
GAREAU, M., SINCLAIR, A.J., Univ. British Columbia (Geological Sciences):
Mineralogy and lithogeochemistry of the Golden Sunlight deposit, Montana, 1985-89; M.Sc. thesis (Gareau).
A study of mineral distribution patterns and geochemical patterns in and near the Golden Sunlight deposit.

635
GAUDREAU, R., ROCHELEAU, M., PERRIER, B., St-JULIEN, P., HÉBERT, R., LACOSTE, P., Université Laval (Géologie):
Métallogénie de quelques gîtes aurifères dans les secteurs, Louvicourt, Vauquelin, Pershing, Abitibi, Québec, 1985-88.
Gîtologie et métallogénie des gîtes de Sigma 2, Chimo, Bruell-Aurora, Croinor Brosnor et Nordeau. Définition des contrôles stratigraphiques, structuraux et géochimiques et définition de genèse des gisements.

636
GAUTHIER, M., Université Québec à Montréal (Géologie):
Gîtologie des Appalaches, Estrie,Québec.
Voir:
Synthèse métallogénique de l'Estrie et de la Beauce, (secteur centre-ouest); Ministère de l'Énergie et des Ressources du Québec, MB 86-46, 1987.

637
GAUTHIER, N., ROCHELEAU, M., ST-JULIEN, P., GUHA, J., Université Laval (Géologie), UQAC:
Géologie structurale et métagllogénie aurifère de la zone tectonique de Cadillac dans la région de Rouyn, Abitibi, Québec, 1984-88; thèse de doctorat (Gauthier).
Stratigraphie, géologie structurale et métallogénie des gîtes Augmitto, Astoria et Rouyn Merger-O'Neill Thompson dans la zone tectonique de Cadillac, cantons de Rouyn et de Beauchastel, région de Rouyn.

638
GODWIN, C., ABERCROMBIE, S., ARMSTRONG, R.L., Univ. British Columbia (Geological Sciences):
Geology of the Zeta Ag-Sn vein prospect, central-western Yukon, 1986-89; M.Sc. thesis (Abercrombie).
Origin of syenite associated with showing being unravelled with Rb-Sr, Pb-Pb, etc., studies.

639
GODWIN, C., ANDREW, K., Univ. British Columbia (Geological Sciences):
Geology of the Wolf and Capoose epithermal deposits, central British Columbia, 1985-88; M.Sc. thesis (Andrew).
See:
Capoose precious and base metal prospect, central British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1987-1, p. 53-56, 1987.

Fluid inclusion and stable isotope studies contribute to a genetic model for the Wolfepithermal vein gold) and the Capocse (bulk silver) deposits.

640
GODWIN, C., BRADFORD, J., Univ. British Columbia (Geological Sciences):
Geology of the Midway Ag-Pb-Zn-Sn Manto deposit, north-central British Columbia, 1986-88; M.Sc. thesis (Bradford).
See:
Geology of Midway deposit area, north-central British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1987-1, 1987.

Geology of the Midway deposit, north-central British Columbia; ibid., Paper 1988-1, 1988.

Fluid inclusions, stable-isotope studies, Pb-Pb studies are nearing completion.

641
GROSS, G.A., GEOL. SURV. CAN.:
Geology and appraisal of metalliferous sedimentary iron and monganese resources, 1957-.

642
HAMILTON, W.N., Alberta Research Council (Geological Survey):
Mineral resource studies - Mineral Deposits File/Map, 1982-88.
See:
Industrial mineral opportunities in British Columbia and Alberta, Canada; Soc. Mining Engineers, Preprint No. 87-111, Littleton, Colorado, 1987.

Project covers assorted subprojects with objectives to map, inventory and evaluate non-fuel mineral resources of Alberta, maintain current inventory of mineral deposits and assessment of resource potential. Mineral deposits file automation and production of minerals map are current goals.

643
HARPER, C., Saskatchewan Geol. Surv.:
REE studies, 1987-.
See:
The Archie Lake Rare Earth Element (Ilmenite-monazite) showing: An Archean? heavy mineral placer deposit, northwestern Saskatchewan; Geol. Assoc. Can. - Mineral Assoc. Can., Program with abstracts, vol. 12, p. 52, 1987.

Rare Earth Elements and their occurrence in northern Saskatchewan; Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 82-86, 1987.

644
HAYNES, S.J., Brock University (Geological Sciences):
Gold Deposits: a) Gold in greywacke terranes, 1982-; b) Epithermal/skarn gold deposits, 1987-.
See:
Classification of quartz veins in turbidite-hosted gold deposits, greenschist facies, eastern Nova Scotia; CIM Bull., vol. 80, no. 898, p. 37-51, 1987.

Superposition of Cretaceous Au-Ag epithermal breccias on Jurassic Pb-Zn-(Cu) mesothermal skarns, Shuikoushan District, Hunan, China; Gold 88, Abstract, 1988.

645
HEATHER, K.B., Ontario Geol. Surv.:
Geological setting of gold mineralization in the Mishibishu Lake District, Ontario, 1985-88.
Component of an areal mapping program of the Mishibishu Lake Greenstone Belt.

646
HEATHER, K.B., Ontario Geol. Surv.:
Geological setting of gold mineralization in the Goudreau-Lochalsh District, Wawa, Ontario, 1987-.
See:
Geological setting of gold mineralization in the Goudreau-Lochalsh District; Ontario Geol. Surv., Misc. Paper 137, 1987.

Part of a multidisciplinary study into integrated digital geoscience data sets for the Goudreau-Lochalsh District. Also a component of a larger study by the author documenting the metallogeny of gold in the Wawa Gold Camp.

647
HOLBEK, P., GODWIN, C., GREENWOOD, H.J., Univ. British Columbia (Geological Sciences):
Geology of gold mineralization, Stikine area, northwestern British Columbia, 1983-88; M.Sc. thesis (Hoblek).
Structural mapping and metamorphic petrology of quartz-carbonate gold veins.

648
IRRINKI, R.R., New Brunswick Natural Res., Energy (Mineral Res. Div.):
Evaluation of metallic mineral deposits in northern New Brunswic, 1985-.
Estimation of "ore" reserves (proven, probable and possible) on massive sulphide depoits is the main purpose. Stratmat and Key Anacon sulphide deposits were studied in detail. The work on Half Mile Lake, Lake George and Burnthill deposits is in progress.

649
JEFFERSON, C.W., Geol. Surv. Can.:
Regional mineral resource assessment, northern Canada, 1984-.

650
JURAS, S., GODWIN, C., Univ. British Columbia (Geological Sciences):
Geology of the Buttle Lake Camp, central Vancouver Island, British Columbia, 1983-87; Ph.D. thesis (Juras).
Detailed geology of Price Hillside with petrogenesis of units; Devonian U-Pb-Zircon date for Sicker Group; definition of Sicker stratigraphy; setting of major volcanogenic camp.

651
KIRKHAM, R.V., Geol. Surv. Can.:
Geology of copper and molybdenum deposits in Canada, 1970-.
See:
Tectonic setting of the Buchans Group; Geol. Surv. Can., Paper 86-24, p. 23-34, 1987.

Evaluation of a resurgent caldera and aspects of ore deposition and deformation at Buchans; ibid., p. 177-194, 1987.

652
KISH, L., MARCOUX, P., Ministère de l'Énergie et des Ressources du Québec:
Roches mafiques et ultramafiques du Grenville de la Côte-Nord, 1985-90.
Evaluer le potentiel économique des roches mafiques et ultramafiques du Grenville dans la région de la Côte-Nord.

653
KLASSEN, R.A., Geol. Surv. Can.:
Uranium drift prospecting techniques; Lower Kazan River area, District of Keewatin, 1975-.

654
LEBEL, J., PERRAULT, G., SAUVE, P., École Polytechnique (Génie minéral):
Étude pétrographique et géochimique de la mine d'or Akasaba, district de Val d'Or, 1985-87; M.Sc.A. (Lebel).
Ce travail fait état de nombreuses mesures géochimiques, pétrographiques et minéralogiques. Il comporte une interprétation géostatistique de la minéralisation. Les principales conclusions: 1) le gîte est "volcanogène"; minéralisation vraisemblablement eu peu endessous du fond océanique; 2) la minéralisation a précédé le métamorphisme (faciés schistes verts superieurs); et 3) le principal sulfure minéral est la pyrrhatine; les autres sont chalcopyrite et aphatérite. La magnétite est localement importante et plusieurs minéraux sont aussi présents: machinawite, argents penttandite, violarite, hedlezite.

655
LEITCH, C., GODWIN, C., ARMSTRONG, R.L., DAWSON, K., Univ. British Columbia (Geological Sciences), Geol. Surv. Can.:
Geology, geochronology and plumbology of Bridge River gold vein camp, southwestern British Columbia, 1986-89; Ph.D. thesis (Leitch).
See:
The Bralorne gold vein deposit: Au update; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1987-1, p. 35-38, 1987.

The Bralorne gold vein deposit; ibid., Paper 1988-1, 1988.

Fluid inclusion, stable isotope and alteration studies of the Bralorne Mine are emphasized.

656
LOVE, D., HODGSON, C.J., CLARK, A.H., GOODFELLOW, W.D., TAYLOR, P., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
Epithermal mineralization at the Mt. Skukum Tertiary volcanic complex, 1987-; Ph.D. thesis (Love).

657
LYDON, J.W., Geol. Surv. Can.:
Geology of lead and zinc resources of Canada, 1977-.

658
MacLEAN, W.H., BERNIER, L., ICHANGI, D., McGill Univ. (Geological Sciences):
Ore genesis and hydrothermal alteration associated with Noranda-type massive sulphide deposits, 1984-; Ph.D. theses (Bernier, Ichangi).
See:
Immobile elements as monitors of mass transfer in hydrothermal alteration: Phelps Dodge massive sulfide deposit, Matagami, Quebec; Economic Geol., vol. 82, p. 951-962, 1987.

Geology and metamorphism of the Montauban North Gold Zones: A metamorphosed polymetallic exhalative deposit; Grenville Province, Quebec; ibid., no. 8, 1987.

Systematics of chlorite alteration at the Phelps Dodge massive sulfide deposit, Matagami, Quebec; ibid., p. 1898-1911, 1987.

659
MacLELLAN, H.E., TAYLOR, R.P., New Brunswick Natural Res., Energy (Mineral Res. Div.), Carleton Univ. (Geology).
Petrogenetic studies of the Burnthill Granite and related Sn-W mineral deposits, 1985-89.
See:
Age and genesis of granite-related W-Sn-Mo mineral deposits, Burnthill, New Brunswick, Canada; Economic Geol., vol. 82, 1987.

To place constraints upon the nature and derivation of the fluids (i.e. magmatic versus meteoric versus connate-metamorphic) from which ore deposition and hydrothermal alteration took place. In so doing, it will help delineate those environments, on a local scale, that are most likely to host economic metal deposits within the larger zones of alteration that are a common nature of the apices of high-level "fertile" granites, such as the Burnthill pluton.

660
MARCOTTE, D., DAVID, M., CHAOUAI, N.E., École Polytechnique (Génie minéral):
Étude géostatistique de Mount Leyshon Mine (Australie), 1986-88.
Cette étude vise à fournir une estimation des réserves de la mine. On voudra comparer les prédictions de réserves obtenues par méthode géostatistique classique (krigeage ordinaire) avec les valeurs obtenues à l'aide d'une méthode non linéaire (krigeage bigaussien). Des recommandations précises devraient découler de cette comparaison concernant la nécessité ou non de procéder à un échantilonnage intensif au moment de la sélection du minerai.

661
McCOLL, M., GODWIN, C., Univ. British Columbia (Geological Sciences):
Geology of Britannia Ridge, and volcanogenic deposits, southwestern British Columbia, 1984-87; M.Sc. thesis (McColl).
Study of stratigraphy/structure of area hosting volcanogenic deposits at Britannia Mines.

662
McDONALD, B., GODWIN, C., Univ. British Columbia (Geological Sciences):
Geology of Mt. Skukum epithermal Au-Ag veins, southwestern Yukon, 1985-87; M.Sc. thesis (McDonald).
Tertiary dating, fluid-inclusions, stable isotopes, mapping of vein deposits.

663
MELLINGER, M., Saskatchewan Research Council (Data Analysis Group):
Gold metallogenesis and geochemistry, 1984-.
See:
Geology and geochemistry of the Rio deposit, Creighton, Saskatchewan; Geol. Assoc. Can. – Mineral Assoc. Can., Program with abstracts, vol. 12, p. 79, 1987.

Major and trace/ore element data for rocks samples taken on surface and in underground workings were interpreted using correspondence analysis. The results show that gold mineralization (with some tungsten values) was introduced at the same time as pyrite was precipitated in host rocks. A separate hydrothermal event affected the same location and resulted in some potassic alteration and weak Cu mineralization.

664
MELLINGER, M., PEARSON, J.G., Saskatchewan Geol. Surv., Saskatchewan Research Council (Data Analysis Group):
Flin Flon – Amisk Lake regional lithogeochemistry, Saskatchewan, 1979-87.
See:
Comparative geochemistry from the Flin Flon and Amisk Lake areas; Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 154-159, 1987.

Interpretation of regional lithogeochemistry patterns by correspondence analysis resulted in the areal characterization of metavolcanic assemblages, metamorphic alteration, and chalcophile element associations. Anomalous concentration ranges for each subarea were defined for Au, As, Cu, Mo, Pb, and Zn.

665
METHOT, Y., PERRAULT, G., TRUDEL, P., École Polytechnique (Génie minéral):
Gîtologie de la mine Eldrich, Québec, 1986-87; M.Sc.A. (Methot).
L'or est le seul élément de 30 éléments mesurés (dont As et Sb), enrichi dans le minerai de la mine Eldrich. Il y a dispersion de l'or autour du gîte; le halo de gîte fait 50 m de largeur et titre 1000 à 3000 ppb Au. La dispersion de l'or se fait esentiellement via le réseau de fractures: à 1 m d'une fracture minéralisée, la teneur en Au de la roche encaissante (sans veine) est de 0.8 ppb Au, soit la teneur première.

666
MILLER, R., Newfoundland Dept. Mines and Energy:
Strange Lake – Letitia Lake project, Newfoundland, 1984-89.
to document the geology, petrology and mineralogy of: 1) the Strange Lake Zr-Y-Nb-REE deposit and the related granites, and 2) the Mann-type Nb-Be ± Y showings and related peralkaline rocks. Both of the study areas are located in Labrador.

667
MORASSE, S., HODGSON, C.J., GUHA, J., Queen's Univ. (Geological Sciences):
Geological setting and evolution of the Lac Shortt gold deposit, Gand township, Quebec, Canada, 1985-88; M.Sc. thesis (Morasse).
See:
Preliminary report on the geology of the Lac Shortt gold deposit, Desmaraisville area,

Quebec, Canada; Proc. Gold '86, an Internat. Symp. Geol. of Gold, p. 191-197, 1987.

668
O'DRISCOLL, C.F., STAPLETON, G., SMITH, J., Newfoundland Dept. Mines and Energy:
Mineral occurrence data system, 1978-.
See:
Mineral occurrence maps of the south-central Labrador Trough, Maps "A", "B"; Newfoundland Dept. Mines and Energy, Map 87-10, Map 87-11, 1987.

669
PERRAULT, G., TRUDEL, P., VERRAULT, C., École Polytechnique (Génie minéral):
Minéralogie et géochimie du gîte Golden Pond East, district de Casa Berardi, Abitibi, Québec, 1986-88.
Le gîte d'or Golden Pond East est enveloppé d'un halo d'une largeur de 100 m à 100 ppb Au (50 à 1000).

670
PETRYK, A.A., Ministère de l'Énergie et des Ressources du Québec:
Quartzite et marbre dolomitique de la région entre Mont Wright et Fermont, Québec, 1987-88.
Délimiter les zones de quartzite et de marbre dolomitique offrant les caractéristiques les plus favorables pour l'exploitation. Étude lithostratigraphique, échantillonnage, étude géochimique et évaluation des caractéristiques physiques.

671
PICARD, C., GIOVENAZZO, D., LAMOTHE, D., IREM-MERI, Ministère de l'Énergie et des Ressources du Québec:
Pétrographie des intrusions ultramafiques et gîtologique de la Fosse de l'Ungava, Québec, 1986-89; thèse de doctorat (Giovenazzo).
Pétrologie des intrusions ultramafiques/comportement des platinoïdes; géologie de divers indices et étude des concentrations en EGP.

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PILOTE, P., GUHA, J., GOLIGHTLY, P., ROBERT, F., DAIGNEAULT, R., Université du Québec à Chicoutimi, INCO, Geol. Surv. Can.:
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Metallogenic studies in the Lake of the Woods greenstone belt, Ontario, 1984-89.
See:
Geology of the High Lake area, Ewart Township, District of Kenora; Ontario Geol. Surv., Misc. Paper 137, p. 61-65, 1987.

Geology of the High Lake area, District of Kenora; in Geoscience Research Seminar and Open House '87, December 15-16, 1987, Toronto, Ontario, abstracts, p. 16, 1987.

761
SOUTHER, J.G., Geol. Surv. Can.:
Geothermal energy resources in Canada, 1973-.

762
TANCZYK, E.I., Geol. Surv. Can.:
Tectonics and metallogeny of the Meguma Terrane of Nova Scotia, 1987-.

763
TESSIER, A.C., HODGSON, C.J., ROBERT, F., Queen's Univ. (Geological Sciences), Geol. Surv. Can.:
Structure and alteration of quartz veins at the Pascalis-Nord Archean gold deposit, Val d'Or, Quebec, 1987-; M.Sc. thesis (Tessier).
Additional aspects of the project could include dating, isotopic determinations and fluid inclusions.

764
TRZCIENSKI, W.E., MARCHILDON, N., Université de Montréal (Géologie):
Geology and potential of chromite and platinum group metals in the Quebec ultramafic belt, 1986.
To evaluate the geologic setting and economic potential of chromite and platinum bearing minerals in the Quebec ultramafic belt. High-grade chromium occurs at several localities and platinum group minerals have been identified. Exploration at several sites is currently being undertaken.

765
WATKINSON, D.H., MELLING, D.R., TALKINGTON, R., DAHL, R., Carleton Univ. (Earth Sciences):
Origin of metallic mineral deposits, 1972-88.
See:
Phase fluide riche en Na-Cl-H-O-N et son role dans la concentration des elements du groupe du platine et de la chromite; Commission des Communautes Europeenes, Rept. 61-85, 1987.

The Cameron Lake gold deposit, northwestern Ontario, Canada, geological setting, structure and alteration; Gold 86 Int. Symp., p. 149-169, 1987.

Research concentrates on a relationship of Cu-Zn deposits to alteration and volcanism; platinum-group-element mobility in mafic-ultramafic rock complexes; and gold deposits.

766
WATSON, G.P., Geol. Surv. Can.:
Metallogy of New Brunswick, 1986-.

MINERALOGY/CRYSTALLOGRAPHY/MINÉRALOGIE/CRISTALLOGRAPHIE

767
BAYLISS, P., TELLEZ, M., Univ. Calgary (Geology and Geophysics):
Mineral Powder X-ray Diffraction File, 1973-.
See:
Mineral Powder Diffraction File; Powder Diffraction, vol. 2, no. 3, 1987.

768
CABRI, L.J., LAFLAMME, J.H.G., CANMET/EMR:
Characterization of the mineralogy and distribution of platinum-group elements from the Bird River sill, Manitoba, 1987-88.
See:
Mineralogical study of the platinum-group element distribution and associated minerals from three stratigraphic layers, Bird River sill, Manitoba; CANMET Rept. 1988.

The results of a preliminary investigation of the mineralogy and the mineralogical distribution of the PGE in samples from the Chrome property, Bird River sill, show three textural/chemical varieties of chromite; trace quantities of Ni, Zn and Ga were found in chromites from all three stratigraphic units; the host mineral distribution for PGM inclusions varies markedly between the Lower Group Pt-bearing unit and that found in the Upper and Lower Main chromitites.

769
CABRI, L.J., LAFLAMME, J.H.G., CANMET/EMR:
Characterization of the mineralogy and distribution of platinum-group elements from the Wellgreen Deposits, Yukon, 1988-89.

770
ČERNÝ, P., MEINTZER, R.E., Univ. Manitoba (Geological Sciences):
Rare-element pegmatites and their granitoid sources in the Proterozoic of Sweden, 1985-.
Current research aimed at the Nb, Ta,Cs mineralization at Utö; mineralogy and paragenesis of phosphate exsolution; Nb, Ta, Sn, Sb, As minerals at Varutrask; and regional zoning in the Mysingen-Utö field. In cooperation with S.-A. Smeds (Uppsala).

771
ČERNÝ, P., MEINTZER, R.E., CHACKOWSKY, L.E., Univ. Manitoba (Geological Sciences):
Petrology and geochemistry of fertile granites in rare-element pegmatite fields, 1975-; Ph.D. thesis (Meintzer).
See:
The Archean Lac du Bonnet batholith, Manitoba: igneous history, metamorphic effects, and fluid overprinting; Geochim. Cosmochim. Acta, vol. 51, p. 421-438, 1987.

Current research concerns fertile granites in the Archean of NE Manitoba, and comparative studies of fertile granites in different crustal settings. In cooperation with B.J. Fryer (Memorial), H. Baadsgaard (Edmonton) and F.J. Longstaffe (Western).

772.
ČERNÝ, P., MEINTZER, R.E., WISE, M.A., CHACKOWSKY, L.E., HAWTHORNE, F.C., CLARK, G.S., Univ. Manitoba (Geological Sciences):

Mineralogy and geochemistry of granitic pegmatites, 1968-.
See:
Radiogenic ^{87}Sr, its mobility, and the interpretation of Rb-Sr trends in rare-element granitic pegmatites; Geochim. Cosmochim. Acta, vol. 51, p. 1011-1018, 1987.

PIXE analysis of apatites from granitic pegmatite dikes near Cross Lake, Manitoba; 11th IXCOM Proc., p. 175-180, 1988.

Current research aimed at the characteristics of the Buck and Huron Claim pegmatites, Manitoba; Riber pegmatite, N.W.T.; geochemistry of Rb/Tl, and monazite of SE Manitoba. In cooperation with J.V. Smith (Chicago), B.J. Fryer (Memorial) and P. Roeder (Queen's).

773
ČERNY, P., WISE, M.A., HAWTHORNE, F.C., Univ. Manitoba (Geological Sciences):
Crystal chemistry and geochemistry of Nb, Ta-oxide minerals, 1970-; Ph.D. thesis (Wise).
See:
The composition of strannomicrolite, N. Jahrb. f. Miner., Mh., p. 249-252, 1987.

Reinstatement of stibiomicrolite as a valid species; Geol. Föreningens i Stock., Förhandlingar 109, p. 105-109, 1987.

Crystallochemical study of wodginite, simpsonite, ixiolite, foordite, and synthesis of niobian and tantalian rutile in progress; paragenetic-geochemical studies in progress in Manitoba, Baffin Island, Colorado, Austria, Sweden, and Uganda. In cooperation with T.S.Ercit (Ottawa), S.-A. Smeds (Uppsala), W. Simmons (New Orelans), G. Niedermayr and R. Goed (Vienna), D.L. Trueman (Vancouver) and E.K. Uckauwun (Mainz).

774
ČERNY, P., WISE, M.A., HAWTHORNE, F.C., CLARK, G.S., Univ. Manitoba (Geological Sciences):
Mineralogy, geochemistry and petrology of the Tanco pegmatite, southeastern Manitoba, 1968-.

Current research is aimed at apatite, triphylite-lithophilite, Nb,Ta-oxide minerals, distribution of Ga, Tl, carbonates, stable and radiogenic isotopes. In cooperation with A.-M. Fransolet (Liège), B.J. Fryer (Memorial), F.J. Longstaffe (Western), T.S. Ercit (Ottawa), H. Baadsgaard (Alberta), and A.J. Anderson (Queen's).

775
DESJARDINS, M., CHAGNON, A., INRS-Géoressources:
Altération hydrothermale dans l'anticlinorium d'Aroostook-Percé, Québec, 1988; these de doctorat (Desjardins).
Voir:
Altération hydrothermale dans l'anticlinorium d'Aroostook-Percé; Congrès européen des Argiles, Seville, septembre 1987.

Géologie de argiles, minéralogie et composition.

776
HARRIS, D.C., Geol. Surv. Can.:
X-ray diffraction analyses and mineralogical studies, 1968-.

777
HERZIG, P.M., HANNINGTON, M.D., SCOTT, S.D., Univ. Toronto (Geology), Rwith Aachen Univ. (FRG):
Mineralogy and chemistry of seafloor polymetallic sulfides from the Tag-area, Mid-Atlantic Ridge, 1988-.
Investigation of sulfide mineralogy and geochemistry of Au-bearing polymetallic sulfide deposits at 26°N, Mid-Atlantic Ridge.

778
MASON, R.A., Memorial Univ. (Earth Sciences):
Cathodoluminescence in carbonates; F substitution in biotite, 1987-.
Relationships between chemistry, geological history and cathodoluminescence activation in carbonates. Fluorine substitution in biotite as a metallogenic indicator in Newfoundland granitoids.

779
McCAMMON, C., Univ. British Columbia (Geological Sciences):
Mössbauer spectroscopy of (Fe, Co)S at high pressure and low temperature: Phase transitions and applications to the earth's interior, 1987-.
To study the phase transition in (Fe,Co)S as a function of pressure, temperature and composition, and its relevance to the Earth's Interior. Project requires construction of diamond anvil high pressure laboratory, now underway, estimated completion 1988.

780
McCAMMON, C., Univ. British Columbia (Geological Sciences):
Equation of state of MnO, CoO and NiO at high pressure and temperature from shock wave experiments, 1988-.
to determine phase transitions occurring in transition metal monoxides at high pressure, with relevance to FeO and the nature of the Earth's Interior. Project will commence once shock wave facility in Department of Physics, University of British Columbia has been built, estimated 1988.

781
MIZUTA, T., SCOTT, S.D., Univ. Toronto (Geology), Kumamoto Univ., Japan:
Kinetics of transition metal diffusion in Zinc Sulfide: the Sphalerite "Speedometer", 1987-89.
See:
Compositional homogenization of sphalerite by post-depositional diffusion processes in ores from some metamorphosed Besshi-type ore deposits in Japan; Mining Geology, vol. 38, no. 3, 1988.

The tracer diffusion in sphalerite of Mn, Fe, Co, Ni and Zn are being measured over a range of temperatures and sulfur activities as a means of better understanding the kinetics of solid state sulfide reactions.

782
NIXON, G.T., CABRI, L.J., British Columbia Ministry Energy, Mines, Petrol. Res. CANMET:
Platinum group minerals in the Tulameen ultramafic complex, southern British Columbia, 1988.
Preliminary results indicate that PGM's in chromitite horizons comprise predominantly Cu-Pt, Pt-Fe, and Pt-Sb alloys.

783
OMOUMI, H., SMITH, D.G.W., LEIBOVITZ, D.P., Univ. Alberta (Geology):
GemIdent: a computer data base for gems and a Fortran 77 program for their identification, 1987-89; M.Sc. thesis (Omoumi).
To develop a modified version of the MinIdent database and mineral identification software which will permit the identification of gems including, where possible, determination of the natural or synthetic origin and, in the case of natural materials the probable source (locality). The use of rigorous mineralogical techniques, particularly compositional determination of major, minor and trace elements, will be stressed.

784
OTTAWAY, T.L., WICKS, F.J., Royal Ontario Museum (Mineralogy); Univ. Toronto (Geology):
Mineralogy and geochemistry of the Muzo Emerald deposit, Colombia, 1981-88; M.Sc. thesis (Ottaway).

785
PETERSON, R.C., JAMIESON, H., Queen's Univ. (Geological Sciences):
Mg/Fe ordering in spinel, 1985-.

786
PETERSON, R.C., LAGER, G.A., Queen's Univ. (Geological Sciences), Univ. Louisville (Geology):
Cation ordering in Mg Al_2O_4, 1986-.

787
PETERSON, R.C., MILLARD, R., Queen's Univ. (Geological Sciences):
NMR studies of AL and S: ordering in minerals, 1987-; M.Sc. thesis (Millard).

788
PETERSON, R.C., RODEE, C., Queen's Univ. (Geological Sciences):
Cation ordering in Co-Mg olivines, 1985-89; M.Sc. thesis (Rodee).

789
PETERSON, R.C., ROELEFSON-AHL, J., Queen's Univ. (Geological Sciences):
Cation ordering in the Stannite-Kesterite series, 1987-; M.Sc. thesis (Roelefson-Ahl).

790
PETERSON, R.C., SNYDER, J., Queen's Univ. (Geological Sciences):
Cation ordering in Ni-Mg olivines, 1984-88; M.Sc. thesis (Snyder).

791
PINCKSTON, R., SMITH, D.G.W., Univ. Alberta (Geology):

Economic mineralogy of the Lake-Zone deposits, Thor Lake, Northwest Territories, 1986-88; M.Sc. thesis (Pinckston).

792
PLANT, A.G., Geol. Surv. Can.:
Electron beam microanlaysis, 1962-.

793
RAUDSEPP, M., TURNOCK, A.C., Univ. Manitoba (Geological Sciences):
Crystal structure and cation ordering of synthetic amphiboles and pyroxenes by rietveld method, 1982-89.
See:
Characterization of synthetic pargasitic amphiboles ($NaCa_2Mg_4M^3Si_6Al_2O_{22}(OH,F)_2$; M^3 = Al, Cr, Ga, Sc, In) by infrared spectroscopy, Rietveld structure refinement, and 27Al 29Si and 19F magic angle spinning NMR; Amer. Mineral., vol. 72, p. 580-593, 1987.

Characterization of cation ordering in synthetic Scandium-fluor-eckermannite, Indium-fluor-eckermannite, and Scandium-fluor-nyboite by Rietveld structure refinement; ibid., p. 959-964, 1987.

Preliminary tests show that it will be possible to do Rietveld structural refinements on the two pyroxenes of a solvus pair in the fine-grained mixture of experimental syntesis.

794
SMITH, D.G.W., Univ. Alberta (Geology):
The mineralogy and chemistry of the Innisfree brecciated LL5 chondrite, 1979-89.
Innisfree appears to be an example of a regolith breccia. New polished sections of one individual from this fall reveal unusual clasts and evidence of what appears to be extraterrestrial oxidation of Fe, Ni)-phases. Microprobe and possibly other studies of these clasts will be undertaken.

795
SMITH, D.G.W., Univ. Alberta (Geology):
The mineralogy and mineral chemistry of the Skiff meteorite, 1980-88.
The Skiff meteorite was found by W.L. Nemeth on his farm near Skiff, Alberta. It is believed to be an H group chondrite but awaits full investigation and proper classification.

796
SMITH, D.G.W., DE ST. JORRE, L., REED, S.J.B., LONG, J.V.P., Univ. Alberta (Geology), Cambridge Univ.:
Nature and origin of zonal metamictization of Zr-silicates from the Thor Lake rare metals deposits, Northwest Territories, 1985-89; M.Sc. thesis (de St. Jorre).
Zr-silicates occurring in the T-zone of the Thor Lake rare metals deposit show sharply zoned metamictization. The composition of the different zones in the Zr-silicate is being investigated by a combination of ion and electron microprobe techniques, with a view to understanding the mechanism of formation and assessing the possible implications for the use of such material is dating work.

797
SMITH, D.G.W., LAUNSPACH, S., Univ. Alberta (Geology), California Instit. Technology:The nature and composition of metal particles in the Bruderhein (L6) ordinary chondrite, 1986-88.
Detailed analytical and imaging work on metal particles show that, notwithstanding conventional wisdom, they have not formed in situ during the thermal metamorphism which effected such chondrites. Rather they must have formed in an environment that predated accretion and that individual grains have subsequently been subjected to only minor compositional changes.

798
SMITH, D.G.W., LEIBOVITZ, D.P., Univ. Alberta (Geology):
MINIDENT-PC: A microcomputer based version of the MinIdent data base and mineral identification software, 1981-.
MINIDENT is an interactive mineral identification and mineral data base management program, written in FORTRAN 77. Data have been stored for about 4000 mineral groups, species and varieties. These data include composition, optical properties in transmitted and reflected light, symmetry, unit cell.dimensions, densities, Vickers and Mohs hardness, d-values and relative intensities of the 5 strongest X-ray powder diffraction lines, JCPDS numbers, any polymorphs, occurences, localities, year first described and sources of the data. However, not all minerals yet have data stored for all of these fields.

Advantage is now being taken of the developments in micro-computer hardware to design a version that can be truly available in any lab. Rather than being a trimmed down version of the mainframe program and data base, it will offer more facilities and conveniences in the microcomputer form.

799
SMITH, D.G.W., MUIRA, Y., LAUNSPACH, S., University of Alberta (Geology); Yamaguchi Univ. (Geology), Japan:
Compositional variation and origin of metal phases in chondritic meteorites, 1979-.
The patterns of variation of the Fe, Ni and Co contents of metal phases in chondritic meteorites are being investigated by electron microprobe techniques. It is believed that this will shed light on their origin, manner of aggregation and thermal histories.

800
SMITH, D.G.W., NOREM, D., GOLD, C., Univ. Alberta (Geology):
Chemical mineralogy of clays, 1980-.
Compositional data obtained with electron microprobes and by other techniques are being used in conjunction with an extensive compositional data base for clay minerals to determine both the extent of solid solutions between clay mineral species (e.g., the smectites) and the proportions of the different clay mineral species in clays and soils.

801
UENO, T., SCOTT, S.D., Univ. Toronto (Geology), Fukuoka Univ., Japan:
Experimental determination of the solubility of Gallium in Zinc Sulfide, 1987-88.
Sphalerite is a major repository of Gallium in sulfide ores and in some meteorites. There are no systematic data on the solubility of Ga in sphalerite for interpreting the empirical observations.

802
WHITE, J.C., Univ. New Brunswick (Geology):
Shock deformation, Manicouagan, Quebec – Electron Microscopy study, 1987-.

803
WHITE, J.C., BARNETT, R., Univ. New Brunswick (Geology), Univ. Western Ontario (Geology):
Microstructures of potassium feldspars, Hemlo, Ontario, 1986-88.

804
WICKS, F.J., Royal Ontario Museum (Mineralogy), Univ. Toronto (Geology):
the structures and crystal chemistry of the serpentine minerals, 1970-.
The lack of well crystallized Mg-end member lizardite has lead to the use of structure modelling and Rietveld structure refinement to determine the details of this structure. High resolution transmission electron microscopy is being used to learn more about the stacking and morphology of lizardite and the serpentinization process.

805
WICKS, F.J., RAMIK, R., Royal Ontario Museum (Mineralogy):
Thermal and evolved gas analyses of minerals, 1976-.
See:
Certification of four North-American gypsum rock samples type: $CaSO_4$, $2H_2O$, GYP-A, GYP-B, GYP-C and GYP-D; Geostandards Newsletter, vol. 11, no. 1, p. 87-102, 1987.

Franklinfurnaceite, a Ca-Fe^{3+}-Mn^{3+}-Mn^{2+} zincosilicate isotypic with chlorite, from Franklin, New Jersey; Amer. Mineral., vol. 72, p. 812-815, 1987.

Pahasapaite, a beryllophosphate zeolite related to synthetic zeolite rho, from the Tip Top pegmatite of South Dakota; Neues Jahrbuch für Mineralogie Monatshefte, pt. 10, p. 433-440, 1987.

Ferristrunzite, a new member of the strunzite group from Blaton, Belgium; ibid., p. 453-457, 1987.

Parabrandtite, the manganese analogue of talmessite from Sterling Hill, Ogdensburg, New Jersey; Neues Jahrbuch für Mineralogie Abh, vol. 157, pt. 2, p. 113-119, 1987.

Thermogravimetric analysis with evolved gas anlaysis has been used to provide data on the volatile components of a variety of new minerals. TGA and DTA have been carried out in vacuum or at atmosphere, with specific furnace atmospheres, on a variety of minerals and geological materials.

INVERTEBRATE/INVERTÉBRÉS

806
BAMBER, E.W., Geol. Surv. Can.:
Carboniferous and Permian biostratigraphy and coral faunas, western and northern Canada, 1971-.
See:
Microfaces of the Lower Carboniferous Banff Foramtion and Rundle Group, Monkman Pass map area, northeastern British Columbia; Geol. Surv. Can., Bull. 353, 1986.

807
BAMBER, E.W., Geol. Surv. Can.:
Micropaleontology, palynology and macropaleontology of the surface and subsurface Paleozoic of the northern Yukon and western District of Mackenzie, 1985-.

808
BOLTON, T.E., Geol. Surv. Can.:
Ordovician-Silurian biostratigraphy, Southampton Island, District of Keewatin, 1970-.

809
BRAUN, W.K., Univ. Saskatchewan (Geological Sciences):
Devonian Ostracoda and biostratigraphy of Western Canada, 1964-.
More than 700 species of Eifelian to Frasnian-Famennian ostracodes form the basis for recognition of 20 biostratigraphic zones, with several subzones, which can be traced through many regions of western Canada.

810
BRAUN, W.K., BROOKE, M.M., Univ. Saskatchewan (Geological Sciences):
Jurassic microfaunas (Foraminifera and Ostracoda) of Western Canada, 1968-89.
A monograph on the Jurassic Ostracoda of western Canada (about 150 manuscript pages) is near completion, representing a summary of about 20 years of study. 85 species of ostracodes are described that are useful in discriminating 13 biozones spanning the Bajocian to Kimmeridgian strata of western Canada.

811
BRIGGS, D., COLLINS, D., Univ. Bristol (Geology), Royal Ontario Mus. (Invert. Palaeontology):
A new Middle Cambrian arthropod from Mount Stephen, British Columbia with chelicerate affinities, 1983-.

812
CALDWELL, W.G.E., JIN, J., Univ. Saskatchewan (Geological Sciences):
Upper Ordovician-Lower Silurian rhynchonellid brachiopods of Canadian Sedimentary Basins, 1984-; Ph.D. thesis (Jin).
Analysis of the internal, external, and functional morphology of Late Ordovician-Early Silurian rhynchonellids preserved across the Canadian mainland. Consideration is being given also to the biostratigraphic potential of these brachiopods and their value in delineating the intersystemic and interstage boundaries.

813
CAMERON, B.E.B., Geol. Surv. Can.:
Foraminiferal biostratigraphy of the Pacific Margin, 1969-.
See:
Contributions to the stratigraphy and tectonics of the Queen Charlotte Basin, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 221-228, 1988.

814
CLARK, T.H., Redpath Museum, McGill Univ. (Geological Sciences):
Trace fossils from Cambrian and Ordovician strata, St. Lawrence lowlands, Quebec.

815
COLLINS, D., WARD, P.D., Royal Ontario Mus. (Invert. Palaeontology), Univ. Washington (Geological Sciences):
Adolescent growth and maturity in *Nautilus*, 1978-.
See:
Adolescent growth and maturity in *Nautilus*; Chapter 29 in *Nautilus*: The biology and paleobiology of a living fossil, p. 421-432, 1987.

816
COPELAND, M.J., Geol. Surv. Can.:
Paleozoic ostracodes of Canada, 1972-.

817
DESBIENS, S., LESPÉRANCE, P.J., Université de Montréal (Géologie):
Stratigraphie et paléoécologie de la formation de York River dans l'est de la Gaspésie, Québec, 1987-90; thèse de doctorat (Desbiens).

818
DIXON, O.A., Univ. Ottawa (Geology):
Ordovician and Silurian heliolitid corals of Anticosti Island, Quebec and Canadian Arctic, 1968-.

819
ELIAS, R.J., Univ. Manitoba (Geological Sciences):
Ordovician to earliest Silurian solitary rugose corals of North America.
See:
Directional orientations of solitary rugose corals; Can. J. Earth Sci., vol. 23, no. 5, p. 739-742, 1987.

Another internal clock: preliminary estimates of growth rates based on cycles of algal boring activity; Palaios, vol. 2, no. 4, p. 323-331, 1987.

Upper Ordovician to lowermost Silurian solitary rugose corals from the Beaverfoot Formation, southern Rocky Mountains, British Columbia and Alberta; Geol. Surv. Can., Bull. 379, p. 42-87, 1988.

820
FAHRAEUS, L.E., PITMAN, D., ROY, K., RYLEY, C., JOHNSTON, D., Memorial Univ. (Earth Sciences):
Paleozoic conodont and ostracode taxonomy, evolution and paleoecology; Ph.D. thesis (Pitman), M.Sc. theses (Roy, Ryley, Johnston).
See:
Soft tissue matrix of decalcified pectiniform elements of "Hindeodella confluens" (Conodontata, Silurian); Palaeobiology of Conodonta, pp. 105-110, 1987.

Taxonomy of Ostracoda (Crustacea) from Mississippian strata of Maritime Canada; Geol. et Paleont., vol. 21, p. 93-135, 1987.

821
FERGUSON, I., Mount Allison Univ. (Geology):
A biometrical study of Carboniferous ostracods *Bairdia* and *Paraparchites*.

822
HALL, R.L., POULTON, T.P., Univ. Calgary (Geology and Geophysics), Geol. Surv. Can.:
Bajocian (Middle Jurassic) faunas and biostratigraphy, British Columbia, 1987-.

823
HALL, R.L., STRONACH, N., Univ. Calgary (Geology and Geophysics):
Biostratigraphy and lithostratigraphy of the Fernie Formation (Jurassic), Alberta and British Columbia, 1978-87.
See:
New Lower Jurassic ammonite faunas from the Fernie Formation, southern Canadian Rocky Mountains; Can. J. Earth Sci., vol. 24, no. 8, p. 1688-1704, 1987.

Lithostratigraphy and biostratigraphy of the Fernie Formation (Jurassic) in the southern Canadian Rocky Mountains; Can. Soc. Petrol. Geol., Mem. 9, p. 233-247, 1987.

824
HOFMANN, H.J., Université Montréal (Géologie):
Precambrian and Lower Paleozoic paleontology and stratigraphy, 1970-.
See:
Paleoscene #7. Precambrian biostratigraphy; Geoscience Can. vol. 14, no. 3, p. 135-154, 1987.

Proterozoic miniatromatolites with radial-fibrous fabric; Sedimentology, vol. 34, p. 963-971, 1987.

Ediacaran biota of the Wernecke Mountains, Yukon; Palaeontology, vol. 30, pt. 4, p. 647-676, 1987.

Study of megafossils, trace fossils, microfossils, and stromatolites; taxonomy, paleobiology, paleoecology and biostratigraphy.

825
HOOPER, K., CLARK, F.E., REDDY, B., Carleton Univ (Earth Sciences):
Microfaunas of the South-West Pacific Ocean, 1985-88; Ph D. thesis (Clark), M.Sc. thesis (Reddy).
F E. Clark is working on Holocene microfauna assemblages in relation to watermass and depositional environment. B. Reddy is working on Neogene sections from deep sea drilling project in the Southwest Pacific.

826
JELETZKY, J.A., COLLINS, D., Geol. Surv. Can., Royal Ontario Museum (Invert. Palaeontoloyg):
Microstructure of the Aulacocerid shell and the phylogenetic relationship between aulacocerid and belemnitid cephalopods, 1986-.

827
KOBLUK, D.R., Univ. Toronto (Erindale College, Geology):
Southern Caribbean cryptic coral reef communities, 1978-.
See:
Southern Caribbean cryptic Scleractinian reef corals from Bonaire, N.A.; Palaios, vol. 2, p. 205-218, 1987.

828
KOBLUK, D.R., Univ. Toronto (Erindale College, Geology):
Structure and dynamics of a coral reef intertidal flat community, 1985-.
See:
Impact of two sequential Pacific hurricanes on sub-rubble cryptic corals: the possible role of cryptic organisms in maintenance of coral reef communities; J. Paleontol., vol. 61, no. 4, p. 663-675, 1987.

829
MATTHEWS, J.V., Jr., Geol. Surv. Can.:
Late Cenozoic fossil insects and Late Cenozoic paleoecology, 1973-.

830
McCRACKEN, A.D., Laurentian Univ. (Geology):
Lower Paleozoic conodonts of northwestern and Arctic Canada, 1978-.
See:
Description and correlation of Late Ordovician conodonts from the *D. ornatus* and *P. pacificus* graptolite zones, Road River Group, northern Yukon Territory; Can. J. Earth Sci., vol. 24, p. 1450-1464, 1987.

831
McNeil, D.H., Geol. Surv. Can.:
Macropaleontology, micropaleontology and palynology of the Mesozoic and Lower Tertiary of the northern Yukon and western District of Mackenzie, 1985-.

832
MOSSMAN, D.J., PLACE, C.H., Mount Allison Univ. (Geology), Univ. New Brunswick (Geology):
Documentation of Lower Permian vertebrate trace fossils in red beds of southwestern Prince Edward Island, 1987-88.
Documentation of three distinct ichnospecies of vertebrate trace fossils in Permian red beds, Prince Edward Island.

833
MUNRO, I., DIXON, O.A., NOWLAN, G.S., Univ. Ottawa (Geology):
Conodont biostratigraphy of Lower Ordovician rocks in the Ottawa - Brockville - Montreal region, 1983-88; Ph.D. thesis (Munro).

834
NORRIS, A.W., Geol. Surv. Can.:
Brachiopods of the lower Upper Devonian Waterways Formation of northeastern Alberta, 1977-.

835
NOWLAN, G.S., Geol. Surv. Can.:
Paleozoic conodonts of eastern Canada, 1977-.
See:
Middle Ordovician conodonts from the Buchans Group; Geol. Surv. Can., Paper 86-24, p. 59-62, 1987.

836
ORCHARD, M.J., Geol. Surv. Can.:
Conodont biostratigraphy and biogeography in the Canadian Cordillera, 1981-.
See:
Studies on the Triassic Kunga Group, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 229, 230, 1988.

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ORCHARD, M.J., BEYERS, J., Univ. British Columbia (Geological Sciences):
Permian-Triassic conodont biostratigraphy, Cache Creek Group, Cache Creek, southern British Columbia, 1986-; M.A. thesis (Beyers).
See:
Conodont biostratigraphy of the Cache Creek Group in the Marble Range of south-central British Columbia; Geol. Surv. Can., Paper 88-1E, p. 159-162, 1988.

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ORCHARD, M.J., IRWIN, S., Univ. British Columbia (Geological Sciences):
Devono-Mississippian conodont biostratigraphy, Earn Group, northern British Columbia, 1987-; M.A. thesis (Irwin).
See:
Conodont biostratigraphy, Midway Property, northern British Columbia (1040/16), British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 249-253, 1988.

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PINARD, S., MAMET, B., Université de Montréal (Géologie):
Foraminifères des formations Nansen, Otto Fiord, Belcher Channel et Canyon Fiord, Bassin de Sverdrup (Ellesmere, Axel Heiberg), 1983-88; thèse de doctorat (Pinard).
Taxonomie des petits Foraminifères du Permien inférieur, incluant plus de 53 genres dont 8 nouveaux genres. Etablissement d'une zonation micropaléontologique, plus particulièrement au Permien inférieur, permettant de corréler à l'échelle du bassin les sections stratigraphiques mesurées dans differents sites sedimentaires. Période de rédaction.

840
RIGBY, J.K., COLLINS, D., Brigham Young Univ. (Geology), Royal Ontario Museum (Invert. Palaeontology):
The sponges from the Middle Cambrian *Oggopsis* trilobite bed, Mt. Stephen, British Columbia, 1986.

841
RISK, M., AITKEN, A., McMaster Univ. (Geology):
Taphonomy, ecology and paleoecology of Arctic marine benthos, 1981-87; Ph.D. thesis (Aitken).

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RIVA, J.F., Université Laval (Géologie):
Ordovician graptolites, 1987-.
See:
The graptolite *Amplexograptus praetypicalis* n.sp. and the origin of the *typicalis* group; Can. J. Earth Sci., vol. 24, no. 5, p. 924-933, 1987.
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SMITH, P.L., TIPPER, H.W., TAYLOR, D., GUEX, J., JAKOBS, G., Univ. British Columbia (Geological Sciences):
Lower Jurassic biostratigraphy of western North America.

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STEARN, C.W., McGill Univ. (Geological Sciences):
Stromatoporoid faunas of Canada.
See:
Effect of Frasnian-Famennian extinction event on stromatoporoids; Geology, vol. 15, p. 677-679, 1987.
Skeletal microstructure of Paleozoic stromatoporoids and its mineralogical implications; Palaios, vol. 2, p. 76-84, 1987.

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TOZER, E.T., Geol. Surv. Can.:
Canadian Triassic Ammonoidea and Bivalvia, 1967-.

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UYENO, T.T., Geol. Surv. Can.:
Conodont biostratigraphy of Siluro-Devonian rocks of the Arctic Islands, 1968-.

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VILKS, G. Geol. Surv. Can.:
Quaternary biostratigraphic methods for marine sediments, 1983-.

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VON BITTER, P.H., Royal Ontario Museum, (Invertebrate Palaeontol.), Univ Toronto (Geology):
The taxonomy, phylogeny and palaeoecology of selected Early Carboniferous conodonts, 1981-.

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VON BITTER, P.H., Royal Ontario Museum (Invertebrate Palaeontol), Univ. Toronto (Geology):
Conodont biostratigraphya nd palaeoecology, Pennsylvanian and Permian, Arctic Islands, Canada, 1982-.
Detailed sampling in 1982 of the Tanquary Fiord area, Ellesmere Island, was followed by sampling on the Sabine Peninsula, Melville Island, in 1984.

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VON BITTER, P.H., DAVISON, N., McFARLAND, S., Royal Ontario Museum (Invertebrate Palaeontol.), Univ. Toronto (Geology):
Late Ordovician conodonts of the Georgian Bay Formation, Toronto region, Ontario, 1983-; M.Sc. thesis (Davison).

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VON BITTER, P.H., MERRILL, G.K., Royal Ontario Museum (Invertebrate Palaeontol.), Univ. Toronto (Geology), Univ. Houston, Houston, Texas:
Pennsylvanian conodonts of North America – their taxonomy, palaeoecology and biostratigraphy, 1968-.

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VON BITTER, P.H., PLINT-GEBERL, H., DHINDSA, R., DUDAR, C., WESTON, D., Royal Ontario Museum (Invertebrate Palaeontol.), Univ. Toronto (Geology):
Palaeoecology and biostratigraphy of Lower Carboniferous (Windsor and Codroy groups) conodonts, Atlantic Provinces, Canada, 1971-; M.Sc. theses (Plint-Geberl, Dhindsa).
See:
Conodonts of the Windsor Group (Lower Carboniferous), Magdalen Islands, Quebec, Canada; J. Paleontol., vol. 61, p. 346-362, 1987.

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VON BITTER, P.H., SCOTT, S.D., SCHENK, P.E., Royal Ontario Museum (Invertebrate Palaeontol.), Univ. Toronto (Geology), Dalhousie Univ. (Geology):
Hydrothermal vent animals in carbonate mounds within bacterial laminites, lower Codroy Group (Lower Carboniferous), Port au Port Peninsula, Newfoundland, Canada, 1987-.

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WADDINGTON, J., FENN, J., Royal Ontario Museum (Invert. Palaeontology, Conservation):
Preventive conservation of amber, 1986-.
Studying mechanisms of deterioration of amber with a view of improving storage and display conditions.

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WADDINGTON, J., FENTON, P., Royal Ontario Museum (Invert. Palaeontology):
Catalogue of Type and Figured Specimens, 1986-.

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WESTROP, S.R., Memorial Univ. (Earth Sciences):
North American Cambrian trilobite mass extinction pattern.

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YANG, L., STEARN, C.W., McGill Univ. (Geological Sciences):
The paleobiology and paleoecology of *Tetradium* in the Ordovician of Ontario and Quebec, 1987-88; M.Sc. thesis (Yang).

VERTEBRATE/VERTÉBRÉS

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ANDREWS, S.M., CARROLL, R.L., Royal Scottish Museum, Redpath Museum:
Anatomy and phylogenetic position of adelogyrinid amphibians (Paleozoic lepospondyls), 1987-.
Preliminary work shows that adelogyrinids lack limbs, but have a massive hyoid apparatus. They show no specific affinities with any other groups of Paleozoic amphibians.

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BRINKMAN, D., EBERTH, D.A., Tyrrell Museum of Palaeoentology:
Microvertebrate assemblages from the Judith River Formation of Dinosaur Provincial Park, Alberta, 1985-.
To further our understanding of the diversity and paleoecology of vertebrate in the Judith River Formation by surveying microvertebrate assemblages in Dinosaur Provincial Park.

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CARROLL, R.L., Redpath Museum:
Agialosaurs and the problem of establishing evolutionary rates between major adaptive types, 1984-.
Major transitions may be based on relatively few skeletal changes. More extensive changes may occur within lineages that have previously undergone a major adaptive shift.

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CARROLL, R.L., Redpath Museum:
Developmental aspects of holospondylous vertebrae in Paleozoic amphibians, 1986-.
See:
Developmental aspects of holospondylous vertebrae in Paleozoic tetrapods; 47th Ann. Meeting Soc. Vertebrate Paleontol., Abstracts, p. 13B, 1987.
Centra of Paleozoic lepospondyls and early amniotes probably developed by direct ossification of perichordal sheath, in contrast with the arch centra of labyrinthodonts.

862
CARROLL, R.L., Redpath Museum:
Large scale patterns and processes of vertebrate evolution, 1987-.
See:
Vertebrate paleontology and evolution; W.H. Freeman and Company, 1987.
Large scale patterns of vertebrate evolution – the origins of major new structures, physiological patterns and ways of life – can be explained by the same evolutionary processes as those that govern evolution at the level of populations and species.

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CARROLL, R.L., CURRIE, P.J., Redpath Museum, Tyrrell Museum of Paleontology:
Problems of phylogenetic analysis, 1980-.
Convergence is a very common factor in the evolution of vertebrates. It is very important to establish the homology of structures before they can be used to establish sister group relationships. Establishment of putative ancestor-descendant relationships is necessary in order to determine the polarity of character morphoclines.

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DE BRAGA, M., Redpath Museum:
Functional morphology of aigialosaurs and the origin of aquatic locomotion in mosasaurs, 1987-; M.Sc. thesis.
Preliminary work shows that aigialosaurs retain most of the skeletal features of their terrestrial varanoid relatives, although the nature of the quadrate and the shape of the tail indicate that they were habitually aquatic. Their cranial anatomy confirms previous assumptions that aigialosaurs are close to the ancestry of mosasurs.

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DINELEY, D.L., LOEFFLER, E.J., Univ. Bristol (Geology):
Early vertebrates frm the Late Silurian/Early Devonian of Somerset and Prince of Wales Islands, Northwest Territories, Canada, 1964-.

866
GODFREY, S., Redpath Museum, Univ. McGill (Biology):
Ontogenetic changes in the skull of the Carboniferous amphibian, *Greererpeton burkemorani* Romer, 1969, 1982-89; Ph.D. thesis.
The many superbly preserved skulls of the Carboniferous amphibian *Greererpeton burkemorani* Romer, provide a rare opportunity to document proportional changes which occur during its ontogeny.

867
GODFREY, S., Redpath Museum, Univ. McGill (Biology):
Insolated tetrapod remains from the Carboniferous at Greer, West Virginia, 1986-88.

868
GODFREY, S., Redpath Museum, Univ. McGill (Biology):
Amphibians and reptiles, 1987-88.
See:
Chapter 19 In: Richardson's Guide to the Fossil Fauna of Mazon Creek, 1988.

869
GODFREY, S., HOLMES, R., Redpath Museum, Univ. McGill (Biology):
An amphibian lower jaw from the Westphalian A (Upper Carboniferous) of Nova Scotia, 1987-88.
Most of the anatomical features preserved in this specimen are primitive for tetrapods above the ichthyostegalian level.

870
GODFREY, S., MOISEY, J.G., Redpath Museum, Univ. McGill (Biology), American Mus. Nat. Hist.:
A Lower Carboniferous shark spine from Horton Bluff, Nova Scotia, Canada, 1987-89.
A new species of ctenacanthoid shark is described on the basis of dorsal finspines from the Tournasian age deposits near Horton Bluff, Nova Scotia.

871
HOLMES, R., Redpath Museum:
The anatomy and relationships of the reptiliomorph amphibian *Archeria crassidisca*, 1984-88.
See:
The braincase of the Anthoncosanian *Archeria crassidisca* with comments on the interrelationships of primitive tetrapods; Palaeontology, vol. 31, no. 1, p. 85-107, 1987.

A complete description of the cranial and vertebral anatomy is presently being sent out to reviewers.

872
HOLMES, R., Redpath Museum:
The anatomy and relationships of an entatomerous amphibian from the Carboniferous deposits of Linton Ohio, 1987-.
Preliminary work has begun, and project should be completed by the end of 1988.

873
HOLMES, R., Redpath Museum:
Distribution and evolution of terrestrial vertebrates from the Carboniferous Period of Nova Scotia, 1987-.
Significant material was collected during July, 1987. It is now being prepared for description and publication.

874
KEBANG, L., McGill Univ. (Biology):
Functional morphology of *Keichowsaurus hui* (Reptilia, Sauropterygia) from China, 1986-88; Ph.D. thesis.
The specimens brought from China have been prepared. It was found that the animal may have swam using its forelimb and tail beating dorsoventrally.

875
NEUMAN, A., Tyrrell Museum of Palaeontology:
Lower Triasic fishes from the Sulphur Mountain Formation, Wapiti Lake, British Columbia, 1984-.
Includes a summary of the faunal lists and geological history of the Lower Triassic Sulphur Mountain Formation in western Canada. New taxa will be described and phylogenies of various primitive bony fishes will be discussed.

876
NEUMAN, A., BRINKMAN, D., WILSON, M.V.H., Tyrrell Museum of Palaeontology, Univ. Alberta (Zoology):
Fossil fishes from the Upper Cretaceous Judith River Formation, Dinosaur Provincial Park, Alberta, 1987-.
Little is known of Cretaceous fishes from North America. Dinosaur Provincial Park has yielded some articulated material that will contribute significantly to our knowledge of these freshwater fish assemblages.

877
SARJEANT, W.A.S., Univ. Saskatchewan (Geological Sciences):
Fossil vertebrate footprints: their use in stratigraphy and palaeoecology.
See:
The study of fossil vertebrate footprints. A short history and selective bibliography; In: Glossary and Manual of Tetrapod Footprint Palaeoichnology, Brasilia: Dept. Nacional da Producao Mineral, p. 1-19, 1987.

Glossary in eight languages; ibid., p. 22-51, 1987.

Substrate and footprints; ibid., p. 53, 1987.

Use of statistical methods in palaeoichnology; ibid., p. 55, 1987.

Festivals and fossil footprints; The Guild Gazette, vol. 6, no. 1, p. 2, 1987.

878
STORER, J.E., Saskatchewan Museum of Natural History:
Eocene – Oligocene mammals of the Cypress Hills Formation (Uintan-Chadronian) of Saskatchewan, 1979-.
See:
Dental evolution and radiation of Eocene and early Oligocene Eomyidae (Mammalia, Rodentia) of North America, with new material from the Duchesnean of Saskatchewan; Dakoterra, vol. 3, p. 108-117, 1987.

The rodents of the Lac Pelletier Lower Fauna, late Eocene (Duchesnean) of Saskatchewan; J. Vertebrate Paleontol., vol. 8, no. 1, 1988.

Current work centres on two local faunas from the Lac Pelletier area. The earlier of these faunas is latest Eocene (Duchesnean). New localities have been discovered in both the Swift Current and Cypress Hills Plateaux.

879
STORER, J.E., TOKARYK, T.T., SaskatchewanMuseum of Natural History:
Late Cretaceous terrestrial vertebrates of Saskatchewan, 1984-.
See:
A hadrosaurian dinosaur from the Bearpaw Formation (late Cretaceous; late Campanian) of Saskatchewan; Canadian Field-Naturalist, vol. 101, no. 4, 1987.

880
TOKARYK, T.T., Saskatchewan Museum of Natural History:
A selected bibliography of the terminal Cretaceous event, 1987-.
Presently over 450 titles concerning the K-T extinction event have been compiled. The next two stages are writing abstracts and indexing.

881
TOKARYK, T.T., Saskatchewan Museum of Natural History:
Status of vertebrate Paleo in Saskatchewan, 1987-88.
See:
Status of vertebrate Paleontology in Saskatchewan; Saskatchewan Archaeology, vol. 7, 1988.

A historical and bibliographical survey of vertebrate paleontology in Saskatchewan, with some discussion on research carried out by Saskatchewan Museum of Natural History staff and year – SMNH staff.

882
TOKARYK, T.T., CASE, G., Saskatchewan Museum of Natural History:
Marine vertebrate fauna of the Niobrara Formation of Saskatchewan, 1986-.
Two localities in the Carrot River area have been examined for vertebrate remains and are considered Niobrara Formation (Coniacian). Present work is concentrated on the selachians.

883
WILSON, M.V.H., Univ. Alberta (Zoology):
Eocene lake environments and fish taphonomy, 1975-.
See:
Predation as a source of fish fossils in Eocene lake sediments; Palaios, vol. 2, p. 497-504, 1987.

Reconstruction of ancient lake environments using both autochthonous and allochthonous fossils; Palaeogeography Palaeoclimatology, Palaeoecology, vol. 62, p. 609-623, 1988.

884
WILSON, M.V.H., Univ. Alberta (Zoology):
Eocene fossil fishes of western North America, 1975-.

885
WILSON, M.V.H., CHALIFA, Y., Univ. Alberta (Zoology):
Marine Mesozoic fishes of western Canada, 1983-.
Nearing completion of a study of Turonian actinopterygians from Alberta.

886
WILSON, M.V.H., WIGHTON, D.C., Univ. Alberta (Zoology):
Fossil insects from the Paleocene of western Canada, 1975-.

887
WILSON, M.V.H., WILLIAMS, R.R.G., Univ. Alberta (Zoology):
Paleocene freshwater fishes of western Canada, 1978-.
Emphasizing the phylogenetic relationships of fossil salmoniforms in the fauna.

888
WU XAOCHUN, Redpath Museum, McGill Univ. (Biology):
Comparative anatomy and systematics of Mesozoic sphenodontids; Ph.D. thesis.
The early members of sphenodontids show an impedance matching middle ear quite comparable to those of modern lizards in both morphology and function on the basis of early Mesozoic fossil remains at hand. The nature of the middle ear system of *Sphenoden punctatus*, the sole living member of the sphenodontids, is not a primitive but a degenerated conditon for the adaptation to a tongue feeding method and a burrowing life.

PALEOBOTANY/PALYNOLOGY/ PALÉOBOTANIQUE ET ANALYSE POLLINIQUE

889
ACHAB, A., INRS Géoressources:
Chitinozoaires ordoviciens du Québec.
Voir:
Chitinozoaires du Caradoc supérieur – Ashgill inférieur du Québec, Canada; Can. J. Earth Sci., vol. 24, no. 6, p. 1212-1234, 1987.
Élaboration d'une zonation de l'Ordovicien du Québec basée sur les chitinozoaires. Corrélation avec les zones de graptolites. Distribution géographique des chitinozoaires ordoviciens et évaluation du provincialisme.

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ASSELIN, E., ACHAB, A., INRS-Géoressources:
Chitinozoaires du Silurien inférieur du synclinorium de la Baie des Chaleurs, Gaspésie, Québec, 1988; thèse de maîtrise (Asselin).
L'étude biostratigraphique des chitinozoaires du Silurien inférieur de Gaspésie a permis de mettre en évidence 6 assemblages distincts de chitinozoaires. Ces assemblages sont comparés avec ceux de même âge décrits dans la littérature.

891
BARSS, M.S., Geol. Surv. Can.:
Palynological zonation of the Carboniferous and Permian rocks of Atlantic Provinces, Gulf of St. Lawrence and northern Canada, 1968-.

892
BRAMAN, D.R., Tyrrell Museum of Palaeontology:
Devonian, Carboniferous, Cretaceous and Tertiary palynology of western and northern Canada, 1981-.

893
BROATCH, J., Univ. British Columbia (Geological Sciences):
Palynological zonation and correlation of the Peace River Coalfield, northeastern British Columbia, 1987; M.Sc. thesis.
See:
British Columbia Ministry Energy, Mines, Petrol. Res., Geological Fieldwork, 1987, Paper 1988-1.

894
BURDEN, E.T., KUTLUK, H., SEARS, B., SPARKS, K., WATERFIELD, J., Memorial Univ. (Earth Sciences):
Biostratigraphy, taphonomy and paleoecology of Mesozoic and Cenozoic palynomorphs; Ph.D. thesis (Kutluk), M.Sc. theses (Sears, Sparkes, Waterfield).

895
BUSTIN, R.M., ROUSE, G.E., MATHEWS, W.H., Univ. British Columbia (Geological Sciences):
Palynology, stratigraphy and geochronology of an alpine pond in southwestern British Columbia.

896
EDLUND, S.A., Geol. Surv. Can.:
Vegetation distribution and relationships to surficial materials and climatic patterns, Arctic region, 1976-.

897
FENSOME, R.A., Geol. Surv. Can.:
Biostratigraphy of the Atlantic Shelf and relevant areas, 1981-.

898
FORMAN, R.T., Univ. British Columbia (Geological Sciences):
Palynostratigraphy and thermal maturation of three Beaufort Sea wells, 1985-88; M.Sc. thesis.

899
LICHTI-FEDEROVICH, S., Geol. Surv. Can.:
Diatom analysis and paleoecological studies of Quaternary sediments, 1972-.

900
MacPHERSON, J., Memorial Univ. (Geography):
Palynological investigations, Newfoundland, 1982-.
See:
Regional variation in Late Wisconsinan deglaciation and postglacial vegetational change in central and eastern Newfoundland, Canada; INQUA abstracts, p. 217, 1987.

901
MacPHERSON, J., Memorial Univ. (Geography):
Lateglacial and Holocene marine and terrestrial palynostratigraphy, Newfoundland, 1986-88.
The terrestrial pollen record is used to date lateglacial-Holocene segments of cores of marine sediment from offshore northeastern Newfoundland.

902
MacPHERSON, J., Memorial Univ. (Geography):
Palynological study for Avalon sea level change, 1987-.
See:
Early sea level transgression, eastern Newfoundland; INQUA abstracts, p. 210, 1987.

903
MATHEWS, W.H., Univ. British Columbia (Geological Sciences):
Geology of Neogene volcanic rocks in south-central British Columbia, 1962-.

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MATHEWS, W.H., BUSTIN, R.M., Univ. British Columbia (Geological Sciences):
Trace-metal content of peat underlying the Vancouver sanitary land, 1987.

905
MATHEWS, W.H., ROUSE, G.E., Univ. British Columbia (Geological Sciences, Botany):
Stratigraphy, palynology and geochronology of Eocene-Early Pleistocene in south-central British Columbia.

906
McGREGOR, D.C., Geol. Surv. Can.:
Silurian and Devonian spores of Canada, 1975-.

907
McINTYRE, D.J., Geol. Surv. Can.:
Upper Mesozoic and Cenozoic palynology of western and northern Canada, 1982-.

908
MOTT, R.J., Geol. Surv. Can.:
Quaternary palynology, 1969-.

909
ROUSE, G.E., Univ. British Columbia (Geological Sciences, Botany):
Palynostratigraphy, dating of Eocene beds in the Hat Creek coal basin in south-central British Columbia, 1976-78, 1988.

910
ROUSE, G.E., Univ. British Columbia (Geological Sciences, Botany):
Palynostratigraphy, dating and paleoclimatic reconstruction of Tertiary beds in southwestern British Columbia.

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SARJEANT, W.A.S., Univ. Saskatchewan (Geological Sciences):
The history and bibliography of geology.
See:
Geologists and the history of geology. An international bibliography from the origins to 1978. Supplement 1979-1984 and additions; Malabar, Florida, Robert E., Krieger Publishing Comp., 1987.
The late Lord Energlyn: some reminiscences; Mercian Geologist, vol. 10, no. 4, p. 299-302, 1987.

912
SARJEANT, W.A.S., STANCLIFFE, R., CASHMAN, P., Univ. Saskatchewan (Geological Sciences):
Fossil dinoflagellate cysts and acritarchs; morphology, evolutionary relationshps and application in palaeoecology and biostratigraphy, 1972-; theses (Stancliffe, Cashman).
See:
Late Triassic dinoflagellate cysts and acritarchs from the Andaman Islands, India; Modern Geology, vol. 11, p. 255-264, 1987.
Late Cretaceous to Early Tertiary dinoflagellate cysts from Narasapur Well-1, Godavari-Krishna Basin, south India; Geobios, vol. 20, no. 2, p. 149-191, 1987.
The cysts and skeletal elements of dinoflagellates: speculations on the ecological causes for their morphology and development; Micropaleontology, vol. 33, no. 1, p. 1-36, 1987.
Thrypticosphaera, new name for a Prasinophycean algal genus from the Eocene of China; Taxon, vol. 36, no. 2, p. 437-438, 1987.

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SWEET, A.R., Geol. Surv. Can.:
Palynological studies of Mesozoic and Tertiary coal measures in western and northern Canada, 1971-.

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SWEET, A.R., Geol. Surv. Can.:
Macropaleontology, micropaleontology and palynology of Devonian, Cretaceous and Tertiary rocks of the Interior Plains, 1985-.
See:
The relationship between the iridium anomaly and palynological floral events at three Cretaceous-Tertiary boundary localities in western Canada; Bull. Geol. Soc. Amer., vol. 99, p. 325-330, 1987.
Morphology, taxonomy and phylogeny of the fossil fungal genus *Pesavis* from northwestern Canada; Geol. Surv. Can., Bull. 379, p. 117-128, 1988.

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UTTING, J., Geol. Surv. Can.:
Palynology of Carboniferous, Permian and Triassic rocks of northern and western Canada, 1981-.

916
WHITE, J.M., Geol. Surv. Can.:
Tertiary and Mesozoic biostratigraphy and paleoecology of the Pacific Continental Margin, 1987-.
See:
Tertiary biostratigraphy, Queen Charlotte Basin, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 239, 1988.

917
ZODROW, E.L., Univ. College of Cape Breton (Geology):
Pecopterids of Sydney Coalfield, Nova Scotia, 1980-.
To-date many type and figured specimens of the cyatheoid group have been examined by me and large-scale oversplitting noted. On balance it appears that the group only has 4-5 well-defined, biostratigraphic efficient species (*Pecopteris arborescens, P. hemitelioides, P. cyathea, P. paleacea*, plus some varieties). These have the biostratigraphic potential for locating boundary planes in the Upper Carboniferous of the world.

918
ZODROW, E.L., CLEAL, C.J., Univ. College of Cape Breton (Geology), Nature Conservancy Council, England:
Neuropteris ovata frond studies, 1985-.
See:
The structure of the Carboniferous pteridosperm frond *Neuropteris ovata* Hoffmann; Palaeontographica, Abt. B, vol. 208, p. 105-124, 1988.

Pteridosperm frond structure is an important taxonomic element for its natural classification, steering away from the form genus. This paper reconstructs the frond and suggest evolutionary lines from *N. obliqua* - *N. ovata* - *Odontopteris*, all of which have biostratigraphic utility in the Upper Carboniferous.

PETROLOGY/PÉTROLOGIE

EXPERIMENTAL/EXPÉRIMENTAL

919
CHENG, W., GREENWOOD, H.J., Univ. British Columbia (Geological Sciences):
Equilibrium among diopside, hydrogrossular spinel, chlorite and H_2O, 1987-89.
Equilibria in the CMASH system have been reversed at the invariant point involving zoisite, diopside, anorthite, grossular, spinel, and chlorite. The invariant point is close to 2.8 kb, 600°C.

920
DE CAPITANI, C., GREENWOOD, H.J., Univ. British Columbia (Geological Sciences):
Computation of chemical equilibria and the distribution of Fe, Mn, and Mg among sites and phases in Olivines and Garnets, 1982-87; Ph.D. thesis (de Capitani).
See:
The computation of chemical equilibrium in complex systems containing non-ideal solutions; Geochim. et. Cosmochim. Acta, 1, vol. 51, p. 2639-2652, 1987.

Combination of experimental phase equilibrium, computed free-energy minimization, Mösbauer and XRD leads to computation and verification of stable site-distributions in natural and synthetic phase assemblages.

921
DUNN, T., Univ. New Brunswick (Geology):
Partitioning of group IIIb, IVb and 5b transition metals between pyroxene and silicate melts: Mg number effects, 1987-.
See:
Partitioning of Hf, Lu, Ti and Mn between olivine, clinopyroxene and basaltic liquid; Contrib. Mineral. Petrol., vol. 96, p. 476-484, 1987.

Experiments and analytical work have been completed on Sc,Ti, V, Y, Zr, Nb, Lu, Hf, Ta partitioning between diopsidic cpx and iron free melt. Experiments on a melt with Mg # = 0.5 are in progress.

922
DUNN, T., MARINON, A., Univ. New Brunswick (Geology):
Partitioning of REE between pyroxene and silicate melts: Mg # effects, 1987-; M.Sc. thesis (Marinon).
To determine the effect of changing Mg# on crystal/melt partitioning of the REE.

923
ROEDER, P.W., SCOWER, P., REYNOLDS, I., Queen's Univ. (Geological Sciences):
Solubility of chromium in basaltic melts and reequilibration of chromite with melt, 1984-; M.Sc. thesis (Scower).
The solubility of chromium has been determined for basaltic metals at 1300°C over a large oxygen fugacity range (log fO_2 = -0.7 to -13). The chromite composition for these experiments has also been measured. An associated research project involved analyzing chromite from the Kilauea Iki Lava Lake to determine how chromite reequilibrates with basaltic liquid on decreasing temperature.

IGNEOUS/ROCHES IGNÉES

924
ALEMAYEHU, T., BELL, K., MOORE, J.M., Carleton Univ. (Ottawa-Carleton Geoscience Centre):
Petrology and geochemistry of plutonic rocks, Gore-Gambela area, Ethiopia, 1983-88; Ph.D. thesis (Alemayehu).
See:
Magmatic arc intrusive complexes in the Birbir Domain, western Ethiopia; Current Res. in African Earth Sci., p. 113-116, 1987.

Geology of the Gore-Gambela Geotraverse, western Ethiopia; ibid., p. 109-112, 1987.

Major, minor and trace element (incl. REE) data permit division of the plutonic suite into (1) prekinematic intrusive complex (variably deformed, mainly gabbro to quartz diorite); (2) late to post-kinematic potassic granite; and (3) peraluminous leucogranite. Group (1) reflects subduction-related magmatism, from oceanic (low k) to continental margin (medium k). Group (2) relates to post-collisional uplift of the ore; group (3) to partial fusion of a thickened continental margin.

925
ALLAN, J.F., Univ. British Columbia (Geological Sciences):
Petrology of seamount volcanoes in the Northeast Pacific, 1987-89.
Specific study focuses on Tuzo Wilson and Explorer seamounts.

926
ANDERSON, R.G., Geol. Surv. Can.:
Jurassic and Cretaceous-Tertiary granitoid plutons, Queen Charlotte Islands, British Columbia, 1987-.
See:
Jurassic and Cretaceous-Tertiary plutonic rocks on the Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 213-216, 1988.

927
BARAGAR, W.R.A., Geol. Surv. Can.:
Stratigraphy and petrology of the Natkusiak Basalts, Victoria Island, District of Franklin, 1975-.

928
BARR, S.M., FARROW, C., Acadia Univ. (Geology):
Dioritic plutons of the Cape Breton Highlands, Nova Scotia, 1987-90; M.Sc. thesis (Farrow).
Large dioritic to tonalitic plutons are characteristic of the southeastern Cape Breton Highlands. All are about 560 Ma in age; at least some contain evidence of high-pressure crystallization (magmatic epidote and Al-rich hornblende). The aim of this project is to investigate petrogenesis and tectonic implications of these intrusions.

929
BERRHAMA, M., LAURENT, R., Université Laval (Géologie):

Pétrologie des roches volcaniques récentes du massif du Siroua, Sud Maroc, 1986-89; thèse de doctorat (Berrhama).
Cartographie terminée, travaux analytiques en voie d'achèvement.

930
CHANDLER, F.W., Geol. Surv. Can.:
Granites of the Eastern Meguma Terrane, Nova Scotia, 1985-.

931
CHASE, R.L., MICHAEL, P.J., Univ. British Columbia (Geological Sciences):
Axial magmatic processes along the Southern Explorer Ridges.
See:
The influence of primary magma compositions, H_2O and pressure on Mid-ocean ridge basalt differentiation; Contrib. Mineral Petrol., vol. 87, 1987.

We are documenting the magmatic plumbing system of a ridge segment.

932
CONROD, D.M., Ontario Geol. Surv.:
Petrology and geochemistry of four Nipissing intrusions within the Gowganda area, northeastern Ontario, 1987-88.
Petrological and chemical comparison of Nipissing intrusions containing mineralization and those that are barren.

933
CURRIE, K.L., Geol. Surv. Can.:
Alkaline rocks in Canada, 1968-.

934
CURRIE, K.L., Geol. Surv. Can.:
Granite studies in the Appalachians, 1973-.

935
CURRIE, K.L., Geol. Surv. Can.:
Geology of the Northern Long Range Mountains, Newfoundland and adjacent areas, 1984-.

936
CURRIE, K.L., Geol. Surv. Can.:
Study of the New Brunswick batholith belt, New Brunswick, 1985-.
See:
Saint George map area: the end of the Avalon Zone in southern New Brunswick; Geol. Surv. Can., Paper 88-1B, p. 9-16, 1988.

937
DAVIDSON, A., Geol. Surv. Can.:
Granite studies in the Ennadai-Rankin Inlet region, District of Keewatin, 1966-.

938
DAVIDSON, A., Geol. Surv. Can.:
Granite studies in the Slave Province, District of Mackenzie, 1971-.

939
DION, C., LAURENT, R., Université Laval (Géologie):
Géologie de la région de Troodhitissa, complexe plutonique du Troodos, Chypre, 1985-88; thèse de maîtrise (Dion).

940
DROBE, J.R., PEARCE, T.H., Queen's Univ. (Geological Sciences):
Petrology of the Ootsa Lake Group Volcanics, Whitesail Lake area; M.Sc. thesis (Drobe).

941
DUNN, T., BENN, R., Univ. New Brunswick (Geology):
Petrogenesis of Recent basic volcanics at Mt. Adams in the Cascade area, 1987-.
To quantitatively assess the petrogenesis of Recent volcanics associated with extensional tectonics in the northern Cascade arc. Reconnaissance field work and preliminary chemical anlayses have been completed.

942
EMSLIE, R.F., Geol. Surv. Can.:
Geology, petrology and economic potential of the anorthosite suite in soutern Labrador, 1975-.

943
EMSLIE, R.F., Geol. Surv. Can.:
Petrology, mineralogy, geochemistry and mineral potential of a Helikian non-orogenic granitic suite in central Labrador and adjacent Quebec, 1979-.
See:
Umiakovik Lake batholith and other felsic intrusions, Okak Bay area, Labrador; Geol. Surv. Can., Paper 88-1C, p. 27-32, 1988.

944
FRANCIS, D., McGill Univ. (Geological Sciences):
The marginal rocks of the Muskox Intrusive, Northwest Territories, 1987-90.
An investigation of the magmatic processes which operated in the margin of the Muskox Intrusion and their role in the development of PT mineralization.

945
FRANCIS, D., LUDDEN, J., McGill Univ. (Geological Sciences):
Continental alkaline volcanism at Fort Selkirk, central Yukon, 1985-89.
See:
Quaternary alkaline volcanism at Fort Selkirk in the central Yukon; Geol. Assoc. Can. – Mineral Assoc. Can., Program with abstracts, vol. 12, p. 43, 1987.

An investigation of the genetic relationship between nephelinite, basanite, and alkaline olivine basalt lavas.

946
FRANCIS, D., LUDDEN, J., CHARLAND, A., McGill Univ. (Earth Sciences):
Geochemistry and petrogenesis of Tertiary alkaline volcanics in the Itcha Mountain Range, central British Columbia, 1985-; Ph.D. thesis (Charland).
See:
Alkaline volcanism of the Itcha Mountain Range, central British Columbia; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 13, p. A19, 1988.

Whole rock chemistry suggest that lavas (both mafic and felsic) erupted to build the Itcha Mountain Range are more Si undersaturated than those erupted in other complexes that, along with the Itchas, form the Anahim belt. Our goal is to investigate this relationship and the genesis of continental alkaline volcanism in ceentral British Columbia.

947
FRANCIS, D., LUDDEN, J., ROBILLARD, I., McGill Univ. (Geological Sciences):
Trace element constraints on the primary magmas of the Baffin Bay picrites, 1987-88; M.Sc. thesis (Robillard).

948
FRANCIS, D., LUDDEN, J., SKULSKI, T., McGill Univ. (Geological Sciences):
Tertiary magmatism in the Wrangell volcanic belt, southwestern Yukon, 1985-89.
The project addresses the setting and origin of transitional (sodic alkaline-calcalkaline) lavas found in the southeastern part of the Late Tertiary Wrangell volcanic belt. The field component of this work is completed and present efforts are direced toward modelling the origin of alkaline and transitional magmas in volcanic arcs.

949
FRANCIS, D., NADEAU, S., McGill Univ. (Geological Sciences):
The nature of upper mantle volatiles beneath the northwestern margin of North America, 1983-88; Ph.D. thesis (Nadeau).
See:
Volatiles and their isotopic ratios in upper mantle xenoliths: implication for mantle trace elements; Geol. Assoc. Can. – Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 76, 1987.

C and $\delta^{13}C$ from upper mantle xenoliths: implication for C origin in the upper mantle; Trans. Amer. Geophys. Union, vol. 68, p. 443, 1987.

950
GIBBINS, W.A., Indian and Northern Affairs Canada (Geology Division):
Duck Lake intrusive sheet, Northwest Territories, 1987.
See:
Duck Lake intrusive sheet; Geol. Assoc. Can., Field Guide – Yellowknife Mining District, Mineral Deposits Section, 1987.

Discusses the geology of a layered mafic-ultramafic intrusion and its potential for platinum group element potential.

951
GREENOUGH, J.D., DOSTAL, J., FRYER, B.J., MOSSMAN, D.J., Mount Allison Univ. (Geology):
Physical and chemical processes affecting differentiation of early Mesozoic volcanic rocks of Atlantic Canada, 1984-91.
See:
The petrology of North Mountain basalts from the wildcat oil well Mobile Gulf Chinampas N-37, Bay of Fundy, Canada; Can. J. Earth Sciences, vol. 24, p. 1255-1260, 1987.

North Mountain basalt from Digby, Nova Scotia: models for a fissure eruption from stratigraphy and petrochemistry; ibid., vol. 25, p. 74-83, 1988.

There are various aspects to the project. 1) Rhythmically layered rhyolitic bands have (1-2 cm) been identified in thick flows of the North Mountain basalts. Although it is not certain how these formed as yet it would appear that they formed through silicate liquid immiscibility. 2) The rhyolitic bands have high Rb/Sr ratios and have allowed dating of the basalts by Rb-Sr methods. 3) As part of a project on Pt group element concentrations in basalts, the effects of crustal assimilation, crystal fractionation, and silicate liquid immiscibility on PGE concentrations are being evaluated. 4) Several of the early Mesozoic dykes are over 100 km long. An attempt is being made to evaluate injection directions in these rocks by analyzing petrofabrics in the dykes.

952
HAM, L.J., Dalhousie Univ. (Geology):
The mineralogy, petrology and geochemistry of the Halfway Cove – Queensport pluton, Guysborough County, Nova Scotia, 1982-88; M.Sc. thesis.

953
JAMES, R.S., Laurentian Univ. (Geology):
Petrology of the host rocks to the Cu-Ni-P.G.M. mineralization, Kanichee Intrusion, Temagami, Ontario, 1984-.
An unmineralized border zone suite of rocks with a chilled marginal facies encloses the mineralized peridotite of the south-east plunging ore zone. A weighted average composition for the border zone has MgO equal to 15-21 wt%.

954
JAMES, R.S., BRONS, D., Laurentian Univ. (Geology):
Stratigraphy and geochemistry of the metavolcanic rocks in the Arsenic Lake region, northeastern portion of the Temagami Greenstone Belt, Ontario, 1985-; M.Sc. thesis (Brons).
The volcanic stratigraphy in this region has been subdivided into two units both of which dip steeply to the south. Several subunits of each are recognized. Tholeiitic rocks predominate in the earliest unit while both tholeiites and calc-alkaline rocks are present in the upper unit. Major element chemistry permits distinction of the two volcanic suites in the upper unit using standard chemical variation diagrams.

955
JAMES, R.S., JOHNSTON, M., Laurentian Univ. (Geology):
Stratigraphy and geochemistry of metavolcanic rocks in southeastern portion of the Temagami Greenstone Belt, Ontario, 1985-87; M.Sc. thesis (Johnston).
Stratigraphic and petrological data indicate that a 3.8 km thick section of this volcanic belt consists of a bimodal suite of mafic tholeiitic flows and pyroclastic rocks, and a calc-alkaline suite of pyroclastics and Qz-Fp-porphyry flows, sills and dykes. The felsic rocks have the geochemical characteristics of a trondhjemitic suite whose origin is considered to be due to partial melting of a small portion of a qtz. thol. source.

956
JOLLY, W.T., LOREK, E., Brock Univ. (Geological Sciences):
Geochemistry of Huronian volcanics, central Ontario, 1984-89; M.Sc. thesis (Lorek).
See:
Geology and geochemistry of Huronian volcanics from Thessalon area, Ontario; Can. J. Earth Sci., vol. 24, p. 1360-1385, 1987.
Lithophile elements in Huronian basalts and evolution of Precambrian Mantle; EPSL, vol. 85, p. 401-415, 1987.
Summer, 1988 – collection of samples from Huronian of Lake Aberdeen area, Ontario.

957
LAMBERT, M.B., Geol. Surv. Can.:
Archean volcanic studies in the Slave-Bear Province, District of Mackenzie, 1973-.

958
LAMBERT, M.B., Geol. Surv. Can.:
Archean felsic volcanic complex near Regan Lake, District of Mackenzie, Northwest Territories, 1974-.

959
LAURENT, R., BEAUDOIN, G., Université Laval (Géologie):
Étude géochimique des Eléments du Groupe du Platine dans les intrusifs ultramafiques et gabbroïques de la région du lac Retty, Fosse du Labrador, 1987-89.
Travaux de terrain terminés, travaux analytiques en cours.

960
MÄDER, K., GREENWOOD, H.J., Univ. British Columbia (Geological Sciences):
Physical and chemical properties of carbonatite magmas, 1986-89; Ph.D. thesis (Mäder).
See:
The Aley Carbonatite Complex, northern Rocky Mountains, BritishColumbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1987-1, p. 283-288, 1987.
Carbonatite and related rocks of the Prince and George Claims, northern Rocky Mountains; ibid., Paper 1988-1, p. 375-380, 1988.
Field work on carbonatites of British Columbia, coupled with thermodynamic models of phase equilibria, are being used to constrain the possible physical properties and conditions of emplacement of carbonatites.

961
MARTIGNOLE, J., INDARES, A., Université de Montréal (Géologie):
La géotraverse Montréal-Val d'Or. Modélisation tectonique le long d'une coupe à travers la Province de Grenville, Québec, 1984-90; thèse de doctorat (Indarès).
Elaboration de modèles tectoniques dans la province de Grenville à partir de données thermobarométriques.

962
MARTIGNOLE, J., MARTIN, E., Université de Montréal (Géologie):
Étude du contact occidental du massif d'anorthosite du Lac St-Jean, Québec, 1987-; thèse de doctorat (Martin).
Étude des relations structurale et métamorphique entre l'anorthosite du Lac St-Jean et les gneiss encaissants.

963
McROBERTS, G., Ontario Geol. Surv.:
Komatiites and komatiitic volcanics in the Kirkland Lake area, Ontario, 1987-88; M.Sc. thesis.

964
MICHAEL, P.J., Univ. British Columbia (Geological Sciences):
H_2O in the suboceanic and sub-arc mantle, 1986-89.
See:
The concentration, behavior and storage in the suboceanic upper mantle: implications for metasomatism; Geochm. et Cosmochim. Acta, 1988.
Paper in preparation on H_2O in the back-arc basin mantle, and on fluids released during subduction.

965
MICHAEL, P.J., Univ. British Columbia (Geological Sciences):
The behavior of rare earth elements in high-silica magmas, 1986-89.
See:
Partition coefficients for rare earth elements in pyroxenes of Hi-SiO_2 rhyolites. The importance of accessory mineral inclusions; Geochim. et Cosmochim. Acta, 1988.
Paper in preparation deals with the control of accessory mineral phases on the chemical differentiation seen in granite-aplite or granite alaskite associations.

966
MICHAEL, P.J., CHASE, R.L., Univ. British Columbia (Geological Sciences):
Isotopic variations in basalts from northeast Pacific mid-ocean ridges – implications for the ages of mantle heterogeneities, 1985-89.
Pb isotopic data has been collected, U/Pb concentration data in progress.

967
PICARD, C., GIOVENAZZO, D., IRME-MERI, Université de Montréal (Géologie), CERM-UQAC:
Pétrologie et métallogénie des roches magmatiques de l'Ungava, 1984-89.
Les travaux ont permis de montrer que la Fosse de l'Ungava correspondait à l'ouverture progressive d'un rift continental jusqu'au stade d'océanisation. Ils utilisent les mécanismes pétrogénétiques associés à cette évoloution (pub. en prép.). Ils ont aussi pour objectifs de caractériser pétrologiquement les différents types d'intrusion mafiques/ultramafiques et de modeliser le comportement des platinoïdes au cours de la magmatogénèses.

968
PICARD, C., LAMOTHE, D., Ministère de l'Énergie et des Ressources du Québec, Ecole Polytechnique, IREM-MERI:
Pétrologie des roches magmatiques de la Fosse de l'Ungava, Québec, 1984-89.

Voir:
Pétrologie et volcanologie des roches volcaniques protérozoiques de la partie centrale de la Fosse de l'Ungava; Ministère de l'Énergie et des Ressources du Québec, ET87-07, 1987.

Le travail vise une compréhension approfondie des caractéristiques pétrochimiques et de la genèse des filons-couches et laves de la Fosse de l'Ungava (ceinture de Cap-Smith). Ce travail fait partie d'un projet de reconnaissance géologique à long terme qui débuté en mars 1983.

969
RACHDI, H., LAURENT, R., Université Laval (Géologie):
Pétrologie des roches volcaniques récentes du Maroc Central, 1986-89; thèse de doctorat (Rachdi).
Cartographie terminée, travaux analytiques en voie d'achèvement.

970
RUSSELL, J.K., Univ. British Columbia (Geological Sciences):
Crystallization and vesiculation of basalt magmas, 1986-.
See:
Crystallization and vesiculation of the 1984 eruption of Mauna Loa; J. Geophysical Res., vol. 92, B13, p. 13731-13743, 1987.

Currently investigating the effects of ascentrate and conduit geometry on the cooling and crystallization of magmas.

971
RUSSELL, J.K., Univ. British Columbia (Geological Sciences):
Energetics of magma mixing, 1988.
Thermodynamic calculations are used to constrain processes involving the mixing of magmas. Such calculations are designed to ensure that proposed magma mixing hypotheses are energetically feasible.

972
RUSSELL, J.K., KEEP, M., Univ. British Columbia (Geological Sciences):
Petrology of the Averill Plutonic Complex, Grand Forks, British Columbia, 1987-88; M.Sc. thesis (Keep).
See:
Geology of the Averill Plutonic Complex, Grand Forks, British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, 1988.

A preliminary map and petrography have been presented. The completed map and detailed chemical analyses will be available at the end of the year.

973
RUSSELL, J.K., PAYNE, D., Univ. British Columbia (Geological Sciences):
Petrology of the Mt. Sheba igneous complex; Warner Pass map sheet, British Columbia, 1987-88; M.Sc. thesis (Payne).
See:
Geology of the Mount Sheba igneous complex; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, 1988.

Regional relationships of Tertiary igneous rocks will be explored. A petrographic and chemical study (currently underway) will explore igneous processes in shallow level plutons.

974
SANBORN-BARRIE, M., Ontario Geol. Surv.:
The geology of the Dryberry Batholithic Complex, northwestern Ontario, 1987-88.
See:
Geology of the Dryberry Batholithic Complex, District of Kenora; Ontario Geol. Surv., Misc. Paper 137, p. 52-60, 1987.

975
SCHANDL, E.S., WICKS, F.J., Univ. Toronto (Geology), Royal Ontario Museum (Mineralogy):
The geochemical development and alteration of basalts from Maud, Meteor and Isles Orcadas Rises, and a provenance investigation of ice-rafted dropstones in the Weddell Sea, 1987-89.
See:
Mantle derived alkali basalts from the Maud Rise, Weddell Sea, Antarctica; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with abstracts, vol. 13, p. A108, 1988.

Ice-rafted dropstones from the Weddell Sea, Antarctica; ibid., p. A109, 1988.

976
SCHAU, M., Geol. Surv. Can.:
Volcanic rocks of the Prince Albert belt, District of Franklin and Keewatin, 1972-.

977
SOUTHER, J.G., Geol. Surv. Can.:
Study of Neogene dykes in Queen Charlotte Island, British Columbia, 1987-.
See:
Implications for hydrocarbon exploration of dyke emplacement in the Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 241-245, 1988.

978
STIMAC, J.A., PEARCE, T.H., Queen's Univ. (Geological Sciences):
Evolution of the Clear Lake Volcanics, California, 1987-; Ph.D. thesis (Stimac).
Using textural relationship in lava flows to determine the relative importance of magma mixing, crystal assimilation, and fractional crystallization in the Clear Lake Volcanics.

979
TAIT, L., CHOWN, E.H., Ministère de l'Énergie et des Ressources du Québec, Université du Québec à Chicoutimi:
Petrographic and structural anisotropy within the Complexe Eau Jaune, Chibougamau, Quebec, 1987-81; thèse de doctorat (Tait).
Un approfondissement des connaissances des mécanismes de mise en place et des phénomènes associés aux intrusions polyphasées tonalitiques dans la bande de roche verte Caopatina-Desmaraisville.

980
TAYLOR, F.C., Geol. Surv. Can.:
Volcanic rocks of Kaminak Lake region, Northwest Territories, 1984-.

981
THIBAULT, Y., LAURENT, R., Université Laval (Géologie):
Géologie et pétrologie des gabbros et des dykes de la région de Phini, complex ophiolitique de Troodos, Chypre, 1985-87; thèse de maîtrise (Thibault).
See:
The mineral chemistry of plutonic rocks and associated picritic dykes in the southwestern Troodos complex; Troodos 87, Ophiolites and Oceanic Lithosphere, Nicosia, Cyprus, abstracts, p. 41, 1987.

982
THIBERT, F., PICARD, C., LAMOTHE, D., Université de Montréal (Géologie), Ministère de l'Énergie et des Ressources du Québec IREM/MERI:
Pétrographie des intrusions ultramafiques de la Fosse de l'Ungava, Québec, 1986-88; these de maîtrise en sciences (Thibert).
Evolution magmatique d'un magma ultramafique en relation avec le comportement des platinoïdes. En rédaction.

983
TROOP, D.G., Ontario Geol. Surv.:
Ontario Geol. Surv.:
Chemical and mineralogical evolution of greenstone terranes, East-central Abitibi belt of Ontario, 1988-.
Reconnaissance field work and data assimilation in 1988.

984
TRZCIENSKI, W.E., GOYETTE, A., Université de Montréal (Géologie):
Petrology of mafic and ultramafic rocks in the Quebec Appalachians, 1984-; thèse de maîtrise (Goyette).
See:
Retrograde eclogite from Mont Albert, Gaspe, Québec; Can. J. Earth Sci., vol. 25, no. 1, p. 30-37, 1988.

To further understand the petrologic and geologic evolution of the Quebec Appalachians through the study of mafic and ultramafic rocks that occur therein.

985
VALIQUETTE, G., DOYON, M., École Polytechnique (Génie minéral):
Synthèse des roches ignées du centre nord de la Gaspésie, Québec, 1985-88; M.Sc.A. (Doyon).
Voir:
Synthèse géologique des roches volcaniques du centre nord de la Gaspésie - Rapport intérimaire; MERQ, MB-86-48, 1987.

Le projet vise à caractériser les roches ignées plutoniques et volcaniques dévoniennes du centre nord de la Gaspésie, de part et d'autres des indices minéralisés du dôme de Lemieux. Ces travaux ont conduit à la découverte nouvelle d'empilements de pyroclastites acides et d'une occurrence d'obsidienne fraîche dont l'âge est sur le point d'être déterminé.

METAMORPHIC/ROCHES MÉTAMORPHIQUES

986
CONNELLY, J.N., RIVERS, T., Memorial Univ. (Earth Sciences):

A metamorphic, structural and geochronological investigation of the Lac Joseph allochthon in western Labrador, 1988-; Ph.D. thesis (Connelly).
See:
Geology of the Lac Caopacho-Lac Fleur de Mai area, southwestern Labrador; Newfoundland Dept. Mines and Energy, Rept. 87-1, p. 225-235, 1987.

987
FOX, D., RIVERS, T., Memorial Univ. (Earth Sciences):
An investigation of the metamorphic reactions in a major annealed ductile shear zone in southwestern Newfoundland, 1986-; M.Sc. thesis (Fox).

988
FROESE, E., Geol. Surv. Can.:
Metamorphism in the Kisseynew Subprovince, 1980-.

989
GORDON, T.M., Geol. Surv. Can.:
Metamorphism of volcanic rocks, Crowduck Bay, Manitoba, 1980-.

990
GORDON, T.M., Geol. Surv. Can.:
Metamorphic processes in the Kisseynew sedimentary gneiss belt, Manitoba, 1983-.

991
JAMES, R.S., Laurentian Univ. (Geology):
Petrology of deformation zone rocks, Temagami Greenstone Belt, Ontario, 1987-.

992
JAMES, R.S., BRONS, D., BARNETT, R., Laurentian Univ. (Geology), Univ. Western Ontario (Geology):
Petrology of metabasites in regional and contact metamorphic environments adjaent to the Strathy-Chambers Batholith, Temagami, Ontario, 1985-.
Mineral parageneses from metabasites in the northeastern portion of the Temagami Greenstone Belt show evidence of a regional greenschist event, contact metamorphism due to emplacement of the Strathy-Chambers Batholith and a synchroneonous to post-intrusion hydrothermal alteration expressed by the occurrence of major linear deformation zones. Estimates of P-T-fluid compositions associated with each event are made and their significance discussed.

993
MARE, P.H., TURNOCK, A.C., Univ. Manitoba (Geological Sciences):
Petrology of alteration zones in the Flin Flon area, Manitoba, 1985-88; M.Sc. thesis (Mare).
Four zones of various types of alteration of Amisk volcanic rocks in the area within 10 km of Flin Flon have been studied by mapping, petrographic study, and microprobe analysis of chlorites.

994
McMULLIN, D., GREENWOOD, H.J., Univ. British Columbia (Geological Sciences):
Geothermobarometry of the Northern Cariboo Mountains, British Columbia, 1985-89; Ph.D. thesis (McMullin).
Probe analyses of coexisting minerals, coupled with theoretical fitting of natural data to experimentally-based thermodynamic data permit defintion of new displaced 'pseud-invariant' points as simultaneous thermometers and barometers.

995
O'HANLEY, D.A., WICKS, F.J., Royal Ontario Museum (Mineralogy):
The role of chlorite in serpentinization, 1987-88.
Chlorite is produced during specific serpentinization events but not during others. As lizardite can accept significant Al-substitution, chlorite is not a necessary product of serpentinization. It is the purpose of this work to determine the conditions under which chlorite is formed.

996
O'HANLEY, D.S., WICKS, F.J., KYSER, T.K., Royal Ontario Museum (Mineralogy), Univ. Saskatchewan (Geological Sciences):
The development of serpentinization and chrysotile asbestos in the Cassiar Asbestos Mine, British Columbia, 1986-88.
See:
The stability of lizardite and chrysotile and the development of serpentine textures; Geol. Soc. Amer. Ann. Meeting Abstracts with Programs, vol. 19, p. 792, 1987.
The results of detailed structural mapping have produced a basis for the interpretation of serpentine textural evolution, chrysotile asbestos vein development, migration of elements during serpentinization and the distribution of stable isotopes.

997
O'HANLEY, D.S., WICKS, F.J., KYSER, T.K., Royal Ontario Museum (Mineralogy), Univ. Saskatchewan (Geological Sciences):
A stable isotope study of the Garrison asbestos deposit, Abitibi Greenstone Belt, Ontario, 1987-88.
The Garrison deposit occurs in a serpentinized ultramafic sill that contains a variety of serpentine textures. Samples of each texture type were chosen for stable isotope analysis from four distinct fiber zones that represent a traverse across the sill.

998
OSBORNE, M.D., KENNEDY, L.P., OWENS, E.O., Univ. Manitoba (Geological Sciences):
Mineralogy, mineral chemistry and petrology of aluminosilicate bearing domains and associated rocks, 1987-89; Ph.D. thesis (Owens).

999
PATTISON, D.R.M., Univ. Calgary (Geology and Geophysics):
Processes of granulite metamorphism, 1988-.
See:
Evolution of structurally contrasting anatetic migmatites in the 3-kbar Ballachulish aureole, Scotland; J.Met. Geol., 1988.
To assess in granulite terrains the relative volumetric importance of the four main granulite-forming processes: primary hot, dry, magmatism; streaming of CO_2-rich fluids; partial melting; dry metamorphism. This will be achieved by detailed examination of a number of Canadian granulite terrains using field-based and laboratory analysis (quantitative petrology, geochemistry, fluid inclusions, thermal modelling, etc.).

1000
SCHANDL, E.S., WICKS, F.J., Univ. Toronto (Geology), Royal Ontario Museum (Mineralogy):
Alteration of ultramafic rocks in the Kidd Volcanic complex of the Abitibi Greenstone Belt, Ontario, Canada, 1983-88; Ph.D. thesis (Schandl).
See:
Time relationships between alteration and deformation at the Slade-Forbes asbestos deposit, Deloro Township, Ontario; Geol. Assoc. Can.-Mineral. Assoc. Can., Program with abstracts, vol. 13, p. A92, 1988.

1001
SCHAU, M., Geol. Surv. Can.:
Granulites of northern Churchill Province, District of Franklin, 1984-.

1002
SMITH, D.G.W., DUKE, J.M., Univ. Alberta (Geology):
Behaviour of rare earth elements during sanidinite facies metamorphism, 1985-88; Ph.D. thesis (Duke).
Neutron activation techniques are being used to determine the behaviour of rare earth elements during sanidinite facies metamorphism of Dalradian phyllites at Sithean Sluaigh, Argyllshire, Scotland. In extreme cases, the phyllites in the aureole which surrounds a tertiary volcanic neck, have broken down to produce rheomorphic granophyres and highly desilicated aluminous, ferromagnesian residues.

1003
WICKS, F.J., O'HANLEY, D.S., Royal Ontario Museum (Mineralogy):
Mineralogy and geochemistry of the serpentinized ultramafic bodies of the Manitoba Nickel Belt, 1985-88.
The different stability fields of lizardite, chrysotile and antigorite and the accessory oxides, sulfides and native alloys are being used to estimate the fO_2 and fS_2 during serpentinization and associated alteration.

SEDIMENTARY ROCHES
SÉDIMENTAIRES

1004
BRAUN, W.K., HALABURA, S., RENAUT, R.W., Univ. Saskatchewan (Geological Sciences):
The Middle Devonian Winnipegosis Formation of southern Saskatchewan: general stratigraphic-sedimentological setting and history of the Winnipegosis "reefs" and surrounding evaporite sequences, 1987-91; Ph.D. thesis (Halabura).

To date, cores of about 100 boreholes have been analyzed, and the subsurface study is continuing. It is too early to draw any conclusions.

1005
BRAUN, W.K., HUDEMA, T., Univ. Saskatchewan (Geological Sciences):
The late Frasnian Jean Marine Formation of the southern Northwest Territories and adjoining areas: general stratigraphic and sedimentological setting and microfaunas, 1988-90; M.Sc. thesis (Hudema).
The study of cores from boreholes of northeastern British Columbia, the southern Northwest Territories,and the outcrop sections west of Great Slave Lake will start in fall.

1006
BRAUN, W.K., SEREDA, R., Univ. Saskatchewan (Geological Sciences):
The Lower Mississippian Souris Valley Formation of southern Saskatchewan and adjoining areas: general stratigraphic-sedimentological setting and Waulsortian-type mounds, 1987-89; M.Sc. thesis (Sereda).
See:
Waulsortian-type mounds in the Mississippian of the Williston Basin: New interpretations from old cores; Saskatchewan Geol. Soc., Sp. Publ. no. 19, p. 98-106, 1987.

A regional survey of Lower Mississippian strata led to the discovery of two Waulsortian-type mounds in the subsurface of southern Saskatchewan. The diagenetic history of these structures is still to be deciphered before completion of the project in spring 1989.

1007
CONIGLIO, M., BYERLEY, M., Univ. Waterloo (Earth Sciences):
Sedimentology and diagenesis of Ordovician and Silurian strata on Manitoulin Island,Ontario, 1987-; M.Sc. thesis (Byerley).
Projects in progress include 1) sedimentology of the Georgian Bay Formation, Manitoulin Island, and 2) dolomitization of Trenton limestones from Manitoulin Island.

1008
VON BITTER, P.H., ELEY, B.E., STORCK, P.O., Royal Ontario Museum (Invertebrate Palaeontol.), Univ. Toronto (Geology):
The stratigraphic, petrographic and palynologic characteristics of chert as utilized by Ontario's pre-historic peoples, 1982-.
Implications of the geological age and occurrence of Fossil Hill Formation chert for Early Palaeo-Indian settlement patterns in southern Ontario.

QUATERNARY GEOLOGY/GÉOLOGIE DU QUATERNAIRE

1009
ALCOCK, P.W J., Ontario Geol. Surv.:
Quaternary geologyof the Timmins area, Ontario, 1987-88.
Quaternary geological report in preparation for the area covered by the following NTS map sheets: Timmins (42A/6), Dana Lake (42A/5), Kamiskotia Lake (42A/12), and Pamour (42A/11).

1010
ALCOCK, P.W.J., MILLER, M.J., Ontario Geol. Surv., Univ. Western Ontario (Geology):
Quaternary geology of the Shining Tree (41D/11) and Sinclair Lake (41P/14) map sheet areas, Ontario, 1986-88.
See:
Quaternary geology of Shining Tree area, Districts of Sudbury and Timiskaming; Ontario Geol. Surv., Misc. Paper 137, p. 374-376, 1987.

Surficial mapping of two 1:50 000 NTS map sheet area using field studies and airphoto interpretation in progress. Assessing use of surficial geochemistry (till: heavy minerals; 250 mesh fraction) for mineral exploration.

1011
ALT, B., Geol. Surv. Can.:
Past and present climates of the Queen Elizabeth Islands, District of Franklin, 1987-.

1012
ANDERSON, T.W., Geol. Surv. Can.:
Quaternary paleoecology, Great Lakes, 1978-.

1013
AYLSWORTH, J.M., Geol. Surv. Can.:
Quaternary geology inventory - southern Keewatin, 1973-.

1014
BLAKE, W., Jr., Geol. Surv. Can.:
Quaternary geochronology, Arctic Islands, 1975-.

1015
BLASCO, S.M., Geol. Surv. Can.:
Surficial geology and geomorphology, Mackenzie Bay - continental shelf, 1970-.

1016
BRAZEAU, A., PARÉ, C., Ministère de l'Énergie et des Ressources du Québec:
Inventaire des granulats: région de Portneuf, Québec, 1987-88.
Inventaire des ressources en granulats de la région de Portneuf. L'étude couvre les feuillets SNRC (1:50 000) 21L/13, 21L/12, 31I/9 et 31I/16. Elle porte sur l'évalustion qualitative et quantitative des dépôts.

1017
BROWN, Y., STEA, R.R., Nova Scotia Dept. Mines and Energy:
Quaternary map of Nova Scotia, 1987-89.
Compilation map of surficial geology of the province of Nova Scotia. Will be published at a scale of 1:50 000 and will incorporate all available information on surficial geology of the province.

1018
CAMERON, B., JONES, J.R., Acadia Univ. (Geology):
Modern coastal back-barrier island environments are analogs for carbonaceous shales, not coals, 1987-88.
See:
Surface distribution of Foraminifera in a New England salt marsh: Plum Island, Massachusetts; Maritime Sediments and Atlantic Geol., vol. 23, no. 3, p. 131-140, 1987.

Coastal back-barrier salt-marsh environments are evaluated as possible modern analogs for some coal-forming basins. Analysis of the amount of organic matter in Holocene salt-march peats from 158 core samples at Plum Island, Massachusetts, indicates that the organic matter content is too low to ultimately produce a coal. C-14 dates indicate depositional rates of 1 mm/yr. Both the high and low salt-march peat facies would probably diagenetically alter to a carbonaceous shale. A review of the organic content reported from other nondeltaic back-barrier and coastal salt-marsh environments indicates that they often have to much detrital material to classify as coal precursors. Barrier-island systems, being affected by sea-level changes and subject to landward migrations, also lack long-term stability needed for coal formation. These data suggest that modern back-barrier environments are not good analogs for coal-forming basins.

1019
CAMERON, B., JONES, J.R., Acadia Univ. (Geology):
Paleoenvironmental and stratigraphic implications of a newly discovered Holocene freshwater peat deposit along the coast of Plum Island, Massachusets, 1986-89.
Early Holocene freshwater peat and underlying blue clay were temporarily exposured in 1986 in the intertidal zone along the oceanward side of Plum Island Massachusetts. These deposits are the oldest dated Holocene sediments on Plum Island. They were mapped and sampled for sedimen analyses, plant megafossils, pollen, and ^{14}C dating because of their significance to our understanding of late-glacial to Holocene New England geology, the development of the Plum Island barrier island system, and Recent New England sea-level history. The peat is well preserved, contains about 90% organic matter and is dominated by cattails, *Sphagnum*, and sedges which indicate a freshwater-bog paleoenvironment. The surface yielded ^{14}C dates of 2975 and 3055 years B.P. The pollen

assemblages indicate an age of 7000-9000 years for the base and local paleoclimatic changes from cool-moist to warm-dry conditions. The blue clay resembles mainland, possibly late-glacial, blue clays found from eastern Massachusetts to Maine. It cannot be accurately dated. Lacking marine fossils, we suggest a late Wisconsin to early Holocene age and a lacustrine origin. These peat and clay deposits probably developed in a sheltered lake-bog environment between drumlins to which the southern end of the island is anchored today. The bog must have been terminated by eustatic sea level rise aobut 3000 years ago.

1020
CLAGUE, J.J., Geol. Surv. Can.:
Quaternary geology, upper Fraser River Basin, British Columbia, 1981-.

1021
CLAGUE, J.J., Geol. Surv. Can.:
Quaternary crustal deformation western British Columbia and northwest Yukon, 1987-.
See:
Advance and retreat glacigenic deformation at Williams Lake, British Columbia; Can. J. Earth Sci., vol. 24, no. 7, p. 1421-1430, 1987.

1022
CLARKE, M.D., Geol. Surv. Can.:
Surficial geology mapping of Manitoba north of latitude 52°, 1987-.

1023
DILABIO, R.N.W., Geol. Surv. Can.:
Stratigraphic definition drilling of the Quaternary sequence near Timmins, Ontario, 1987-.
See:
The Quaternary stratigraphy of the Timmins area, Ontario, as an aid to mineral exploration by drift prospecting; Geol. Surv. Can., Paper 88-1C, p. 61-66, 1988.

1024
DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology, terrain inventory, northeastern Manitoba, 1975-.
See:
Glacial and interglacial stratigraphy, Hudson Bay Lowlands, Manitoba; Geol. Soc. Amer. Centennial Field Guide, vol. 3, p. 43-46, 1987.

1025
DREDGE, L.A., Geol. Surv. Can.:
Quaternary geology and geomorphology, northern Melville Peninsula, District of Franklin, 1985-.

1026
DREIMANIS, A., Univ. Western Ontario (Geology):
Genetic classification of till, 1967-88.
See:
Tills, their genetic terminology and classification; in Genetic classification of glacigenic deposits, p. 15-81, 1988.

Formation and deposition of subglacial and supraglacial tills; Handbook of glacial indicator tracing, 1988.

The first paper is the final report of the Till Work Group of INQUA Commission on genesis and lithology of glacial Quaternary deposits, reviewing the history of development of genetic classifications of till during the last 150 yrs, proposing a simplified classification, diagnostic criteria for three end members, and a dictionary in 21 languages. The second paper is supplementary, written for prospectors working in glaciated terrain.

1027
DREIMANIS, A., HAMILTON, J.P., KELLY, P.E., HART, B., Univ. Western Ontario (Geology):
Subglacial sedimentation, 1984-; M.Sc. thesis (Hart).
See:
Genetic complexity of a subaquatic till tongue at Port Talbot, Ontario, Canada; Geol. Surv. Finland, Sp. Paper 3, p. 23-38, 1987.

Complex subglacial sedimentation of Catfish Creek till at Bradtville; in Tills and glaciotectonics, p. 73-87, 1987.

The polygenetic origin of subglacial till with rapid facies changes laterally and vertically is discussed from two case studies.

1028
DREIMANIS, A., HICOCK, S.R., Univ. Western Ontario (Geology):
Stratigraphy of the Wisconsin Glaciation in southern Ontario, 1952-.
See:
The Laurentide Ice Sheet during the last glaciation: a review and some current reinterpretations along its southern margin; in The beginning of an inland glaciation, 1988.

A review of the fluctuations of the Laurentide Ice Sheet along its southern margin is supplemented by discussions of Early Wisconsinan events in Illinois, relating the Roxana loess to a probable Lake Michigan lobe advance, and in S. Ontario, presenting evidence on glacial advances of two lobes into the Erie and Ontario basins.

1029
DREIMANIS, A., LIIVRAND, E., RAUKAS, A., Univ. Western Ontario (Geology), Institute of Geology, Tallin:
Pollen in tills from southern Ontario, 1980-88.
The pollen associations of the Ontario tills are found to be dominated by pine, probably because of incorporation of more early glacial and interstadial rather than warm interglacial pollen-bearing sediments.

1030
DUBOIS, J.-M.M., PARENT, M., Université de Sherbrooke (Geographie), Univ. Western Ontario (Geology):
Le Quaternaire des Cantons de l'Est (Quebec), 1980-88; these de doctorat (Parent).
Mise au point sur le Quaternaire des Cantons de l'Est et esquisse paléogeographique.

1031
DUBOIS, J.-M.M., PARENT, M., Université de Sherbrooke (Géographie):
Variations quaternaires du niveau marin aux îles de la Madeleine, Québec, 1985-91.

1032
DYKE, A.S., Geol. Surv. Can.:
Quaternary geology - terrain inventory, Frances Lake, Yukon Territory, 1981-.

1033
DYKE, A.S., Geol. Surv. Can.:
Quaternary geology – terrain inventory Prince of Wales Island, King William Island and adjacent mainland Keewatin, 1981-.

1034
DYKE, A.S., Geol. Surv. Can.:
Quaternary history and surficial materials of northwestern Baffin Island, District of Franklin, 1983-.

1035
EDLUND, S.A., Geol. Surv. Can.:
Surficial geology – terrain inventory, Bathurst-Cornwallis and eastern Melville Islands, District of Franklin, 1974-.

1036
ELSON, J.A., McGill Univ. (Geological Sciences):
Laboratory investigation of structures resulting from the melting of buried ice, 1985-88.
Collapse features caused by the melting of ice blocks in layered sand simulate reverse faults and thrust structures seen in ice-contact stratified drift.

1037
FINCK, P., GRAVES, R., BONER, F., Nova Scotia Dept. Mines and Energy:
South Mountain Batholith, Pleistocene survey, 1984-89.

1038
FULTON, R.J., Geol. Surv. Can.:
Quaternary geology of the Canadian Cordillera, 1975-.

1039
FULTON, R.J., Geol. Surv. Can.:
Surficial geology, Cobden area (Quebec part), 1980-.

1040
FYLES, J.G., Geol. Surv. Can.:
Early Quaternary and Late Tertiary geology and geomorphology, Arctic Islands, 1987-.

1041
GADD, N.R., Geol. Surv. Can.:
Correlation of Quaternary geology; Great Lakes - St. Lawrence Valley region, 1978-.

1042
GILES, T., HUGHES, O.L., RUTTER, N.W., MORISON, S.R., Univ. Alberta (Geology):
Sedimentation and style of the McConnel deglaciation in the Mayo region, Yukon, 1987-89; M.Sc. thesis (Giles).

1043
GRANT, D.R., Geol. Surv. Can.:
Surficial geology, St. Anthony – Blanc Sablon map-areas, Newfoundland, 1969-.

1044
GRANT, D.R., Geol. Surv. Can.:

Surficial geology, Cape Breton Island, Nova Scotia, 1970-.

1045
GRANT, D.R., Geol. Surv. Can.:
Surficial geology of Newfoundland, 1974-.

1046
GRANT, D.R., Geol. Surv. Can.:
Quaternary stratigraphy Yarmouth region, Nova Scotia, 1979-.

1047
HODGSON, D.A., Geol. Surv. Can.:
Surficial geology and geomorphology of central Ellesmere Island, District of Franklin, 1972-.

1048
HODGSON, D.A., Geol. Surv. Can.:
Surficial geology, geomorphology and terrain inventory of the Ringnes and adjacent islands, District of Franklin, 1976-.

1049
HODGSON, D.A., Geol. Surv. Can.:
Quaternary geology – terrain inventory, northeast Victoria Island and Stefansson Island, District of Franklin, 1986-.

1050
HUGHES, O.L., Geol. Surv. Can.:
Quaternary stratigraphy of Old Crow Basin and Porcupine River Valleys, Yukon, 1968-.

1051
HUGHES, O.L., Geol. Surv. Can.:
Quaternary geology, Mayo-McQuesten, Yukon Territory, 1979-.

1052
JACKSON, L.E., Jr., Geol. Surv. Can.:
Quaternary geology and terrain inventory, Nahanni-Sheldon Lake – Finlayson Lake, Yukon and District of Mackenzie, 1980-.

1053
KARROW, P.F., Univ. Waterloo (Earth Sciences):
Great Lakes history, 1964-.

1054
KARROW, P.F., Ontario Geol. Surv.:
Brampton area, Ontario, 1984-.
See:
Quaternary geology, Brampton area, western half; Ontario Geol. Surv., Map P-3072, 1987.

Quaternary geology of the Brampton area; Ontario Geol. Surv., Misc. Paper 137, p. 380, 381, 1987.

Mapping at 1:50 000 completed. Report in preparation. Preliminary map completed and submitted.

1055
KARROW, P.F., BAJE, A.F., Univ. Waterloo (Earth Sciences):
Glacial and glaciolacustrine history, Lake Superior basin, 1983-; Ph.D. thesis (Baje)..

1056
KARROW, P.F., BELKNAP, D.F., Univ. Waterloo (Earth Sciences), Univ. Maine:
Aminochronology of marine terraces, southwest Florida, 1984-.

1057
KARROW, P.F., GREENHOUSE, J.P., DUSSEAULT, M.B., Univ. Waterloo (Earth Sciences):
Subsurface stratigraphy using downhole geophysics, 1981-88.

1058
KARROW, P.F., HANN, B.J., KERR-LAWSON, L.J., CUMBAA, S.L., WARNER, B.G., Univ. Waterloo (Earth Sciences), Univ. Manitoba (Geological Sciences), Nat. Mus. Can.:
Paleontology of the Toronto interglacial, 1960-.
Manuscripts in preparation on Don Formation molluscs, plants, and microvertebrates.

1059
KARROW, P.F., RUTTER, N.W., Univ. Waterloo (Earth Sciences), Univ. Alberta (Geology):
Aminochronology on wood from interglacial and interstadial deposits, 1979-.

1060
KARROW, P.F., WARNER, B.G., Univ. Waterloo (Earth Sciences):
Interstadial environments, eastern Great Lakes, 1980-.
Sites understudy in Michigan, Ontario, and New York.

1061
KASZYCKI, C.A., Geol. Surv. Can.:
Glacial erosion of the Canadian Shield, 1978-.
See:
A model for glacial and proglacial sedimentation in the shield terrane of southern Ontario; Can. J. Earth Sci., vol. 24, no. 12, p. 2373-2391, 1987.

1062
KASZYCKI, C.A., Geol. Surv. Can.:
Surficial geology and drift composition, northwestern Ontario, 1987-.

1063
KELLY, R., Ontario Geol. Surv.:
Synoptic studies of the Quaternary geology, Toronto, Ontario, 1987-.
See:
Synoptic studies of the Quaternary geology, Metropolitan Toronto area; Ontario Geol. Surv., Misc. Paper 137, p. 382-383, 1987.

Involves visiting natural exposures and building excavations to investigate stratigraphy sedimentology and geotechnical properties of the strata underlying the Toronto area. Excavation data is added to an urban geotechnical databank.

1064
KETTLES, I.M., Geol. Surv. Can.:
Surficial geology of eastern Frontenac Arch, southern Ontario, 1987-.

1065
KING, R.H., Univ. Western Ontario (Geography):
Holocene tephra in the south-central Canadian Rockies, 1980-.
See:
Some aspects of Quaternary soils in Canada; Can. J. Soil Sci., vol. 67, p. 221-247, 1987.

Analysis of primary Holocene air-fall tephras and their alteration products in the south-central Canadian Cordillera continues using a variety of identification criteria, including compositional analyses of glass shards and titano-magnetite inclusions by electron microprobe, X-ray diffraction and selective chemical dissolution analyses. The major objective of this study is to establish the distribution of the deposition plumes in the distal area and to establish criteria for the recognition of primary versus altered tephras.

1066
KLASSEN, R.A., Geol. Surv. Can.:
Surficial geology and Quaternary stratigraphy of north Baffin-Bylot Islands, District of Franklin, 1978-.

1067
KLASSEN, R.A., Geol. Surv. Can.:
Drift prospecting, east-central Labrador, 1982-.
See:
Glacial studies in Labrador; Geol. Surv. Can., Paper 88-1C, p. 109-116, 1988.

1068
KLASSEN, R.W., Geol. Surv. Can.:
Quaternary geology, southwestern Saskatchewan, 1983-.

1069
LAMOTHE, M., Geol. Surv. Can.:
Quaternary geology and till geochemistry, New Brunswick, 1987-.

1070
LAMOTHE, M., Geol. Surv. Can.:
Glacial dispersal and stratigraphic drilling, Gaspé, Quebec, 1987-.

1071
LUCKMAN, B.H., Univ. Western Ontario (Geography):
Little Ice Age in Jasper National Park, Alberta, 1981-.
See:
Reconstruction of Little Ice Age events in the Canadian Rockies; Geographie physique et Quaternaire XL, p. 17-28, 1987.

8000-year old wood from the Athabasca Glacier; Can. J. Earth Sci., vol. 25, p. 148-151, 1987.

Dating the Moraines and Recession of Athabasca and Dome Glaciers, Alberta, Canada; Arctic and Alpine Research, vol. 20, p. 1, 1987.

Reconstruction of environmental history of Canadian Rockies using glacier fluctuations and tree rings. Living tree chronologies of up to 600 years (*Larix lyellii*, Banff N.P.); 680 years (*Picea englemannii*, Columbia Icefields) and 870 years (*Pinus albicaulis*, Bennington glacier, Mount Robson Park) are being developed and attempts made to cross-date with snag chronologies of up to 400 years at the Athabasca and Robson glaciers.

1072
LUCKMAN, B.H., Univ. Western Ontario (Geography):
Little Ice Age and Recent glacier fluctuations in the Premier Range, British Columbia, 1984-.

1073
MacPHERSON, J., RENOUF, M.A.P., Memorial Univ. (Geography, Anthropology):
Late Holocene vegetation history of Port au Choix, northwestern Newfoundland, 1987-.
To provide environmental background (paleoecology, sea level change) for archaeological work on the Port au Choix area.

1074
McDONALD, M.M.A., BROOKES, I.A., MILLS, A.J., CHURCHER, C.S., KLEINDIENST, M.R., HOPE, C.A., MOLTO, J.E., Royal Ontario Museum (Society for the study of Egyptian Antiquities):
The Dakhleh Oasis project, 1978-.
See:
Geomorphology and Quaternary geology of the Dakhleh Oasis region, south-central Egypt; The Dakhleh Oasis project, interim reports, vol. 1, Royal Ontario Mus. Publ. Archaeology 1988.

Quaternary geological studies of Dakhleh region contribute to paleoenvironmental reconstruction and to geoarchaeological work on site context and condition. Sediments and artifacts range from Middle Pleistocene (Lower Palaeolithic) to late Holocene (modern).

1075
MENZIES, J., Brock Univ. (Geological Sciences):
Subglacial sediment mechanics.
See:
Toward a general hypothesis of drumlin formation; Drumlin Symp., Balkema Publ., p. 1-24, 1987.

1076
MORGAN, A.V., Univ. Waterloo (Earth Sciences):
Paleoentomology and zoogeography of Late Quaternary insect assemblages, 1986-.
See:
Stable isotope, fossil Coleoptera and pollen stratigraphy in late Quaternary sediments from southern Ontario and New York State; Paleogeography, Paleoclimatology, Paleoecology, vol. 58, p. 183-202, 1987.

Plant and insect fossils from Nipissing sediments along the Goulais River, southeastern Lake Superior; Can. J. Earth Sci., vol. 24, no. 8, p. 1526-1536, 1987.

Late Wisconsin and early Holocene paleoenvironments of east-central North America based upon assemblages of fossil Coleoptera; Decade of North American Geology, Vol. K-3, Geol. Soc. Amer., p. 353-370, 1987.

Polygraphus convexifrons Wood (Coleoptera:Scolytidae); a range extension to Ungava Bay, Quebec, Canada; Coleopterists, Bull., vol. 42, no. 1, p. 114-118, 1987.

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MORGAN, A.V., PILNY, J.J., Univ. Waterloo (Earth Sciences):
Paleoecological examination of two Late Quaternary sites in southwest Ontario, 1984-86; M.Sc. thesis (Pilny).
See:
Paleoclimatic implications of a Late Wisconsinan insect assemblage from Rostock, Ontario; Can. J. Earth Sci., vol. 24, no. 4, p. 617-631, 1987.

Paleoentomology and paleoecology of a possible Sangamon age site near Innerkip, Ontario; Quaternary Res., vol. 28, no. 1, p. 157-174, 1987.

1078
MUDIE, P.J., Geol. Surv. Can.:
Quantitative Quaternary paleoecology, Eastern Canada, 1982-.

1079
OSBORN, G., Univ. Calgary (Geology and Geophysics):
Holocene/Late Pleistocene tephrostratigraphy and glacial chronology.
See:
Age of pre-Neoglacial cirque moraines in the central North American Cordillera; Géographie Physique et Quaternaire, vol. 41, p. 365-375, 1987.

1080
PELLETIER, B.R., Geol. Surv. Can.:
Quaternary paleo-sealevel map of Canada, 1978-.

1081
PERRAS, M.M., RUTTER, N.W., Univ. Alberta (Geology):
Stratigraphy and sedimentology of Quaternary deposits along Athabasca River, central Alberta, 1986-88; M.Sc. thesis (Perras).

1082
PROUDFOOT, D.N., Newfoundland Dept. Mines and Energy:
Quaternary geology of the Portland Creek - Port au Choix area as an aid to mineral exploration, 1986-. Quaternary geology of Mt. Sylvester area as an aid to mineral exploration, 1987-.

1083
RICKETTS, M.J., Newfoundland Dept. Mines and Energy:
Aggregates for export.
Detailed sampling of sand and gravel deposits in western Newfoundland to determine their export potential. Results of particle size analysis for each sample, petrographic analysis for samples containing +16 mm size material, an estimated quantity of each deposit and 1:12 500 scale aggregate maps.

1084
RUTTER, N.W., Univ. Alberta (Geology):
Quaternary geology western and northern Canada.

1085
RUTTER, N.W., Univ. Alberta (Geology):
Amino acid analyses for relative age dating of Quaternary sediments.

1086
RUTTER, N.W., Univ. Alberta (Geology):
Quaternary shoreline evolution, Patagona, Argentina.

1087
RUTTER, N.W., Univ. Alberta (Geology):
Quaternary paleoenvironments derived from loess deposition and soil development, Baoji, China.

1088
SCHREINER, B.T., Saskatchewan Research Council (Sedimentary Resources), Univ. Saskatchewan (Geological Sciences):
Quaternary stratigraphy of the Melville area, Saskatchewan, 1984-88; Ph.D. thesis.
Develop the Quaternary stratigraphy in order to define geology and groundwater resources and their relationship to development in the area.

1089
SCHREINER, B.T., Saskatchewan Research Council (Sedimentary Resources):
Geological setting of the Wanershewin Heritage Site, Saskatchewan, 1987-.
Establish the geological setting in the region around the Heritage Site in order to explain the evolution of the valley.

1090
SCHREINER, B.T., MILLARD, M.J., Saskatchewan Research Council (Sedimentary Resources):
Geology and groundwater resources of southern Saskatchewan.
Define the Quaternary stratigraphy in order to identify aquifers and indicate the groundwater conditions such as water levels and water quality.

1091
SCHREINER, B.T., SIMPSON, M.A., Saskatchwan Research Council (Sedimentary Resources):
Surficial geology of Saskatchewan, 1987-89.

1092
SHARPE, D.R., Geol. Surv. Can.:
Quaternary geology, southwestern Victoria Island, District of Franklin, 1983-.

1093
SHARPE, D.R., Geol. Surv. Can.:
Quaternary geology of Lake of the Woods area, Ontario, 1986-.

1094
SHILTS, W.W., Geol. Surv. Can.:
Properties and provenance of glacial sediments, 1969-.

1095
SHILTS, W.W., Geol. Surv. Can.:
Quaternary stratigraphy, Northern Ontario Lowlands, 1983-.

1096
SIMPSON, M.A., Saskatchewan Research Council (Sedimentary Resources):
Surficial geology, southern Saskatchewan, 1985-88.

Surficial geology mapping at 1:250 000 scale is now complete in Saskatchewan.

1097
SMITH, J., MICHEL, F.A., Carleton Univ. (Earth Sciences):
Surficial geology of the Wager Bay area, District of Keewaten, 1986-; M.Sc. thesis (Smith).
Mapping of the surficial geology and geochemical sampling of tilts as part of an economic resource evaluation program.

1098
SMITH, S.L., Geol. Surv. Can.:
Timmins stratigraphic drilling transect, Northern Ontario, 1987-.
See:
Quaternary stratigraphy of overburden drill cores, Timmins to Smoky Falls, Ontario; Geol. Surv. Can., Paper 88-1C, p. 207-216, 1988.

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ST-ONGE, D.A., Geol. Surv. Can.:
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Avoir des cartes de favorabilité minérale; compléter la connaissance métallogénique; mieux planifier les travaux de reconnaissance du MER et de l'industrie.

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The utilization of dimensionless radiance and irradiance ratios for the measurements of atmospheric optical depth; *Comptes rendus du 11e Symposium canadien de télédétection*, Waterloo, Ontario, 1987.

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ANCIENT SEDIMENTS/ SÉDIMENTS ANCIENS

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An analysis of the sedimentology of the Beekmantown Group. Emphasis is being placed on its diverse assemblage of biosedimentary structures, including both stromatolites and trace fossils. Image analysis of the stromatolites is also being pursued.

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Sedimentology of the glacigenic (Coleman) Member of the Gowganda Formation in the Lake Temagami area, Ontario, 1985-89; Ph.D. thesis (Burbidge).

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CHEEL, R.J., TESTANA, N., Brock Univ. (Geological Sciences):
Sedimentology of glacial deposits of the Niagara Peninsula, Ontario.
A study is complete on the glaciofluvial and glaciolacustrine sediments of the St. Davids Gorge, at the Niagara escarpment. Work will be extended to include the Fonthill Kame deposits and glaciolacustrine sediments exposed along the Lake Ontario shoreline of the Niagara Peninsula.

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Sedimentology and stratigraphy of the Silurian shelf margin sequence, Canadian Arctic Archipelago, 1987-; Ph.D. thesis (deFreitas).

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Stratigraphy and sedimentology of Judith River Formation of southern Alberta, 1986-87.
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HENDRY, H.E., KOZIOL, B., Univ. Saskatchewan (Geological Sciences):
Stratigraphy of the Viking Formation (Cretaceous) in Saskatchewan, 1983-88; M.Sc. thesis (Koziol).

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Fine-grained facies of conglomeratic alluvium, Martin Group (Proterozoic), northern Saskatchewan; ibid., p. 71, 1987.

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Development of a depositional model for the oil-prone Jurassic section in the Wapella-Moosomin area, southeastern Saskatchewan, 1987-; M.Sc. thesis.
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Stratigraphy of the Upper Ordovician Vaureal and Ellis Bay formations, eastern Anticosti Island, Quebec; Can. J. Earth Sci., vol. 24, p. 1807-1820, 1987.

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Current research is aimed at establishing bathymetric constraints on carbonate tempestites in the Vaureal and Ellis Bay formations and to characterise reef complexes in the Ellis Bay Formation.

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Facies architecture in clastic sedimentary basins; New Perspectives in Sedimentary Basin Analysis, p. 67-81, 1987.

Improvements in techniques for field description of complex three-dimensional rock bodies, application to study of petroleum reservoir heterogeneities.

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Fluvial facies architecture of the Westwater Canyon Memer, Morrison Formation (Jurassic), southern San Juan Basin, New Mexico, 1988-; M.Sc. thesis (Cowan).

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Architectural element analysis of a foreland basin clastic wedge, 1985-89; Ph.D. thesis (Nadon).
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The sedimentological analysis of an Upper Cretaceous clastic wedge, southwestern Alberta: preliminary results; Geol. Assoc. Can.- Mineral Assoc. Can., Program with abstracts, vol. 12, p. 76, 1987.

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O'CONNELL, S.C., PATE, C.R., UNDERSCHULTZ, J.R., RADYSH, H., TROTTER, R., Alberta Research Council (Geological Survey):
Peace River Arch investigation, 1986-90.
To increase the level of understanding of the nature, origin and geological history of the PRA, especially with regard to its formation and behaviour throughout time and its effect upon sedimentation, fluid flow, geothermal regime and oil and gas distribution in the region.

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Stratigraphy and depositional environments of an Upper Ordovician to Lower Devonian shelf-to-basin transition, Svendsen Peninsula, Ellesmere Island, Northwest Territories; M.Sc. thesis (Poey).

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RENAUT, R.W., AHLSTROM, J., Univ. Saskatchewan (Geological Sciences):
Diagenesis of the Devonian Dawson Bay Formation in central Saskatchewan, 1987-90; M.Sc. thesis (Ahlstrom).
A detailed analysis of cement-porosity relationships in the Dawson Bay Formation and their evolution. The carbonates are the source of many brine leakages into potash mines in the underlying Prairie Evaporite. The study aims to understand the nature of the aquifer and its contained fluids.

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Regional sedimentology and paleo-placer gold potential of the early Aphebian Lorrain Formation, Cobalt Group, Huronian Supergroup, of the Cobalt Plain, east-central Ontario, 1986-88.
Field study to be completed this summer. Petrographic investigation in progress. Aims: paleo-placer gold potential, environment of deposition, petrographic characterization, tectonic setting, source terrane, burial metamophism.

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ROSENTHAL, L., Brandon, Univ. (Geology):
Depositional facies and sequences in cores/outcrop of Jurassic-Lower Cretaceous clastic wedge, west-central Alberta, implications for tectonic history and petroleum exploration in the basin, 1985-88; Ph.D. thesis.

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ROSENTHAL, L., YOUNG, H.R., Brandon Univ. (Geology):
Depositional and diagenetic model for Mississippian Lodgepole Formation, southwestern Manitoba, influence of salt tectonics and basement faulting on sedimentation, 1987-.
Just completed first year of the project financed by Manoil Oil and Gas Ltd. In first year, the project focused on small (Daly) area; present work planned will extend the correlations across major tectonic axis (Churchill-Superior Boundary) and north to the subcrop belt. Work presently on hold, pending completion of Rosental's Ph.D. thesis.

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SAMI, T., DESROCHERS, A., Univ. Ottawa (Geology):
Sedimentology of the Lower Silurian Becscie Formation, Anticosti Island, Quebec, 1987-; M.Sc. thesis (Sami).

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Géochimie des Terres rares dans les carbonates sédimentaires, 1988-.
Examiner le comportement de ces éléments en tant qu'éventuels traceurs diagégétiques.

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TASSÉ, N., SCHRIJVER, K., INRS-Géoressources:
Métallogénie des Basses-Terres du Saint-Laurent, Québec, 1984-88.
Voir:
Étude gîtologique et évaluation du potentiel mineral des Basses-Terres du Saint-Laurent; Ministère Énergie et Ressources du Québec, MB 87-46, 1987.

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Platform sediments in Sachigo Subprovince, 1987-90; M.Sc. thesis (Cortis).
Documentation of sedimentology/volcanology of shallow water quartz-rich platform sequences.

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VAN DE POLL, H.W., Univ. New Brunswick (Geology):
Sediment intrusion phenomena and physical diagenesis of the Prince Edward Island Redbeds, 1982-.

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Relationship between soft sediment deformation and mud intrusion structures and meta-depositional tectonic deformation: Riversdale Group, New Brunswick and Nova Scotia, 1987-.

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VAN DE POLL, H.W., PLACE, C.H., Univ. New Brunswick (Geology):
Stratigraphy, sedimentology and physical diagenesis, megacyclic sequences II and III southeastern Prince Edward Island, 1982-88; M.Sc. thesis (Place).

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Calcite pseudomorphs from the Pleisotcene and Holocene of Canada: possible geothermometers, 1976-.

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Stratigraphy, petrography, diagenesis, 1987-.
Hibernia oil field, Grand Banks, Newfoundland.

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YOLE, R.W., NENTWICH, F., Carleton Univ. (Earth Sciences):
Stratigraphy, petrography and environmental analysis of Late Paleogene sediments, Mackenzie Delta-Beaufort Sea area, Northwest Territories, 1987-.

1185
YOUNG, H.R., NELSON, C.S., HARRIS, G.J., Brandon Univ. (Geology), Univ. Waikato, Hamilton, N.Z. (Earth Sciences):
Burial dominated cementation in non-tropical carbonates of the Oligocene Te Kuiti Group, New Zealand, 1987.

1186
YOUNG, H.R., ROSENTHAL, L., Brandon Univ. (Geology):
Depositional and diagenetic model for Mississippian Lodgepole Formation, southwestern Manitoba, 1987-.

RECENT AND UNCONSOLIDATED SEDIMENTS/SÉDIMENTS RÉCENTS ET NON CONSOLIDÉS

1187
ACKER, K., STEARN, C.W., McGill Uni. (Geological Sciences):
The carbonate-siliciclastic facies transition in the modern sediments off the northeast coast of Barbados, 1986-88; M.Sc. thesis (Acker).

1188
ADSHEAD, J.D., Geol. Surv. Can.:
Geological characterization of Arctic lakes: sediment properties and sedimentary processes, 1977-.

1189
AMOS, C.L., Geol. Surv. Can.:
Sediment dynamics at the head of the Bay of Fundy, 1978-.

1190
AMOS, C.L., Geol. Surv. Can.:
Stability and transport of sediments on continental shelves, 1980-.

1191
BORNHOLD, B.D., Geol. Surv. Can.:
Marine surficial geology and sedimentation, British Columbia, 1975-.

1192
CANT, D.J., Geol. Surv. Can.:
Sedimentology of east coast formations, 1985-.

1193
CHEEL, R.J., Brock Univ. (Geological Sciences):
Study of the textural characteristics of stratification in clastic deposits, 1984-87.
Work continues on the grading and orientation of grains in hummocky cross stratification, wave-rippled cross-stratified conglomerates, and stratification formed by large bedform migration.

1194
DALRYMPLE, R.W., HOOGENDOORN, E.L., Queen's Univ. (Geological Sciences):
The sedimentology and dynamics of shoreface-attached ridges, Sable Island Bank, Nova Scotia, 1982-88; Ph.D. thesis (Hoogendoorn).
To document the sedimentology of shoreface-attached ridges and relate it to the regional hydrodynamic setting of the Scotian shelf. The information obtained will be used to develop a process related facies model for storm-dominated inner shelf sediments.

1195
DALRYMPLE, R.W., LeGRESLEY, E.M., Queen's Univ. (Geological Sciences):
Holocene sedimentation on the Western Grand Banks of Newfoundland, 1985-88; M.Sc. thesis (LeGresley).
All of the available grab sample, core, seismic and sidescan data have been examined. These data together with the limited amount of current meter data and numerical model results indicate that this shelf experiences unidirectional (southerly) sediment transport due to storm amplification of the Labrador Current.

1196
DALRYMPLE, R.W., ZAITLIN, B.A., MAKINO, Y., Queen's Univ. (Geological Sciences):
Sedimentology of the macrotidal, Cobequid Bay - Salmon River estuary, Nova Scotia, 1982-; Ph.D. thesis (Zaitlin).
To document all aspects of the sedimentation in this macrotidal estuary. Recent achievements include the development of a conceptual model of estuarine sedimentation that is applicable to all estuaries, and better documentation of the nature of, and general controls on, mudflat deposition.

1197
FLINT, J.E., DALRYMPLE, R.W., FLINT, J.J., U.S. Army Corp. Engineers, Buffalo, Queen's Univ. (Geological Sciences), Brock Univ. (Geological Sciences):
Sedimentology of the Sixteen Mile Creek Lagoon, Niagara Peninsula, Ontario.

1198
HENDERSON, P., RUST, B.R., Univ. Ottawa (Geology):
Provenance and depositional facies of surficial sediments in Hudson Bay, a glaciated epeiric sea, 1984-88; Ph.D. thesis (Henderson).
See:
Preliminary seismostratigraphic and geomorphic interpretations of the Quaternary sediments of Hudson Bay; Geol. Surv. Can., Paper 88-1B, p. 271-280, 1988.
Glacigenic and marine sedimentation in Hudson Bay, Canada (Abst.); Programme with Abstracts, XII Inqua Congress, Ottawa, Canada, p. 185, 1987.
Involves integration of textural and compositional data with acoustic facies in order to access the relative contribution of modern and Quaternary sediments in Hudson Bay. Distribution of the Quaternary deposits has implications for Wisconsinan glaciation and deglaciation.

1199
HENDRY, H.E., AMUNDSON, L., Univ. Saskatchewan (Geological Sciences):
Stratigraphy and sedimentology of post-glacial alluvium in the South Saskatchewan River Valley south of Saskatoon, 1987-91; Ph.D. thesis (Amundson).

1200
HENDRY, H.E., CAMPBELL, J.E., Univ. Saskatchewan (Geological Sciences):
Sedimentology and stratigraphy of gravelly point bar deposits in post-glacial alluvium, Saskatchewan River Valley, near Nipawin, eastern Saskatchewan, 1984-88; M.Sc. thesis (Campbell).
See:
Anatomy of a gravelly meander lobe in the Saskatchewan River, near Nipawin, Canada; Soc. Economic Paleont. Mineral., Sp. Publ. 39, p. 179-191, 1987.

1201
HILL, P., Geol. Surv. Can.:
Beaufort Sea coast, 1983-.

1202
HISCOTT, R.N., BENUS, A., MILLS, J., MOSHER, D., ENGLAND, T., QUINN, L., MYROW, P., Memorial Univ. (Earth Sciences):
Facies analysis of clastic sediments especially turbidities; evolution of Atlantic continental margin through comparison of Grand Banks and Portugal; M.Sc. theses (Benus, Mills, Mosher), Ph.D. theses (England, Quinn, Myrow).
See:
Definition of the Iapetus rift-drift transition in western Newfoundland; Geology, vol. 15, p. 1044-1047, 1987.

1203
JANSA, L.F., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Mesozoic and Tertiary rocks of the Atlantic continental margin, 1971-.

1204
LUTERNAUER, J.L., Geol. Surv. Can.:
Fraser Delta sedimentation, British Columbia, 1974-.
See:
Geoarchitecture, evolution, and seismic risk assessment of the southern Fraser River delta, B.C.; Geol. Surv. Can., Paper 88-1E, p. 105-110, 1988.

1205
LUTERNAUER, J.L., Geol. Surv. Can.:
Marine delta sedimentation, British Columbia, 1979-.

1206
MacLEAN, B., Geol. Surv. Can.:
Near-surface geology of the Arctic Island channels, 1982-.

1207
MUDIE, P.J., Geol. Surv. Can.:
Ice Island sampling and investigation of sediments (ISIS), 1984-.

1208
RENAUT, R.W., GONZALES, A., LONG, P.R., Univ. Saskatchewan (Geological Sciences), York Univ. (Geography):
Recent carbonate and evaporite sedimentation in the Western Cordillera (British Columbia and Alberta), 1984-; M.Sc. thesis (Gonzales).
See:
Freeze-out precipitation of salts in saline lakes – examples from Western Canada; Crystallization and precipitation, Pergamon, Oxford, p. 33-42, 1987.

A study of (1) the recent lacustrine evaporites of Interior British Columbia and the evolution of their brines, (2) recent lacustrine carbonates in British Columbia, and (3) the spring travertines of Interior British Columbia and Alberta Rockies.

1209
RENAUT, R.W., OWEN, R.B., Univ. Saskatchewan (Geological Sciences), Univ. Malawi:
Genesis of lacustrine phosphate deposits in the Malawi Rift, 1987-90.
The recent sediments of Lake Malawi are rich in authigenic phosphate minerals derived from fish debris and fecal materials. This sedimentological-mineralogical-geochemical study will investigate the nature and origins of the phosphate and its diagenesis in oxidizing and reducing environments – to develop a model for non-marine phosphorite genesis in rifts and explain economic deposits like Minjingu in Tanzania.

1210
RISK, M., CARRIQUIRY, J., McMaster Univ. (Geology):
Sedimentary signals from an El Nino-damaged coral reef, 1984-; Ph.D. thesis (Carriquiry).

1211
RUST, B.R., NANSON, G.C., Univ. Ottawa (Geology), Wollongong Univ.:
Recent fluvial sediments, Lake Eyre Basin, central Australia, and ancient equivalents (Mesozoic, Australia, North America; Paleozoic, Canada), 1984-90.
See:
Coexistent mud braids and anastomosing channels in an arid - zone river: Cooper Creek, central Australia; Geology, vol. 14, p. 175-178, 1987.

1212
SCHAFER, C.T., Geol. Surv. Can.:
The Recent paleoclimatic and paleoecologic records in fjord sediments, 1980-.

1213
SYVITSKI, J.P.M., Geol. Surv. Can.:
The physical behaviour of suspended particulate matter (spm) in natural aqueous environments, 1981-.

1214
SYVITSKI, J.P.M., Geol. Surv. Can.:
Sedimentology of fjords, 1981-.

1215
SYVITSKI, J.P.M., Geol. Surv. Can.:
Sedflux: On the transfer of sediment from land to the continental shelf, 1986-.

1216
TAYLOR, R.B., Geol. Surv. Can.:
Coastal morphology and sediment dynamics, southeast and east Cape Breton Island, Nova Scotia, 1980-.

1217
YOUNG, H.R., NELSON, C.S., Brandon Univ. (Geology), Univ. Waikato, Hamilton, N.Z., (Earth Sciences):
Endolithic biodegradation of cool-water skeletal carbonates on Scott Shelf, northwestern Vancouver Island, Canada, 1987.

SOIL SCIENCE/PÉDOLOGIE

1218
KING, R.H., KELLY, P., Univ. Western Ontario (Geography):
Numerical analysis of soil variability in a Holocene chronosequence, Truelove Lowland, Devon Island, N.W.T., 1985-88; M.Sc. thesis (Kelly).
See:
Holocene paleoenvironmental reconstruction of the Truelove Lowland, Devon Island, N.W.T.; 16th Arctic Workshop, Boreal Institute for Northern Studies, abstracts, p. 81-85, 1987.
The reconstruction of paleoenvironmental changes in Truelove Lowland, Devon Island, N.W.T.; Proc. National Student Conf. on Northern Studies, November 18-19, 1986, p. 215-220, 1988.

Soil samples, ranging in age from 2,300 to 9,700 years BP, were collected from twenty-four raised beaches in Truelove Lowland, Devon Island. A suite of multivariate statistical techniques have been applied to the soil chemical data to isolate individual pedogenic factors influencing soil development in these deposits. Soils have been isolated which reflect development through time with minimal influences from variations in vegetation, relief, parent material and climate.

1219
RUTHERFORD, G.K., LI, L., BUSTOS, L., Queen's Univ. (Geography):
The nature, properties and disposition of soils formed on basalt in Canada, 1984-.
Soils formed on basalt have been examined under cool humid conditions in Nova Scotia, mild and dry conditions in British Columbia. The latter will be continued in 1988 and extended to the younger ash materials near Mt. Garabaldi, B.C. in 1989.

1220
RUTHERFORD, G.K., STUANES, A., Queen's Univ. (Geography):
Properties and disposition of soils associated with Norse settlements on Greenland, 1988-.
To examine the soils associated with the old Norse settlements on Greenland, evaluate pedogenesis and determine the likelihood of post settlement ice cover.

PRECAMBRIAN/PRÉCAMBRIEN

1221
AITKEN, J.D., Geol. Surv. Can.:
Helikian and Hadrynian stratigraphy Eastern Cordillera and Interior Platform, 1973-.

1222
COOK, D.G., Geol. Surv. Can.:
Stratigraphy and structure of northern Franklin Mountains and adjacent plains, District of Mackenzie, 1985-.

1223
EASTON, R.M., Ontario Geol. Surv.:
Stratigraphic synthesis, Central Metasedimentary Belt, Grenville Province, Ontario, 1988-90.
As part of the Geology of Ontario project, an attempt will be made to synthesize the stratigraphy of the CMB and to evaluate the utility of existing stratigraphic terms. Comparison of stratigraphy across major terrane boundaries will also be attempted.

1224
FROESE, E., Geol. Surv. Can.:
Regional correlations, gold-bearing volcanic belts, Flin Flon – Southend – La Ronge, Saskatchewan, 1985-.

1225
HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Foxe Fold Belt (East half), Baffin Island, District of Franklin, 1979-.
See:
Results of fieldwork in Foxe Fold Belt near Dewar Lakes, Baffin Island, N.W.T.; Geol. Surv. Can., Paper 88-1C, p. 101-108, 1988.

1226
JACKSON, G.D., Geol. Surv. Can.:
Operation Borden, District of Franklin, 1977-.

1227
KNIGHT, I., O'BRIEN, S.J., Newfoundland Dept. Mines and Energy:
Late Precambrian sedimentary basin, Avalon Zone, Newfoundland, 1986-.
See:
Stratigraphy and sedimentology of the Connecting Point Group and related rocks, Bonavista Bay, Newfoundland: an example of Late Precambrian Avalonian Basin; Newfoundland Dept. Mines and Energy, Rept. 88-1, 1988.

1228
LACOSTE, P., ROCHELEAU, M., HÉBERT, R., ST-JULIEN, P., GAUDREAU, R., Université Laval (Géologie):
Synthèse stratigraphique et paléogéographique, Cantons de Louvicourt, Vauquelin, Pershing et Haig, Abitibi, Québec, 1985-89; thèse de doctorat (Lacoste).
Voir:
Géologie et gîtologie du secteur Louvicourt-Vauquelin Abitibi, Rapport d'étape (phase 1); Ministère de l'Énergie et des Ressources du Québec, MB 86-67, 1987.
Synthèse stratigraphique, paléogéographique et gîtologique du secteur de Vauquelin, de Pershing et de Haig. Rapport intérimaire (phase 2); ibid., MB 87-52, 1988.
Présentation d'un modèle paléogéographique et des implications métallogéniques à partir d'une cartographie à l'échelle 1:20 000 et d'études volcanologiques, sédimentologiques et de géologie structurale.

1229
RACINE, M., ROCHELEAU, M., ST-JULIEN, P., Université Laval (Géologie):
Stratigraphie et géologie structurale du Groupe de Trivio au voisinage de la mine Chimo, Abitibi, Québec, 1985-88; thèse de maîtrise (Racine).

1230
ROCHELEAU, M., ST-JULIEN, P., HÉBERT, R., VERPAELST, P., MUELLER, W., GUHA, J., Université Laval (Géologie), UQAT, UQAC:
Stratigraphie, paléogéographie et implications métallogéniques de quelques séquences archéennes dans la ceinture d'Abitibi, Québec, 1985-89.
See:
Composition of Archean sedimentary rocks in the Archean Abitibi Belt, Quebec, Canada: Its role in interpretation of basin evolution; IAS 12th International Congress, Canberra, Abstracts, p. 260, 1987.
Diapirism during regional compression: The structural pattern in the Chibougamau region of the Archean Abitibi Belt, Quebec; Geologische Rundschau, vol. 75, no. 3, p. 715-736, 1987.
Études de stratigraphie, sédimentologie, volcanologie, géologie structurale et métallogénie dans les régions de Rouyn-Val-d'Or, de Louvicourt et de Chibougamau.

1231
ROSS, G., MURPHY, D., Geol. Surv. Can., Univ. British Columbia (Geological Sciences):
Stratigraphy and sedimentology of Upper Proterozoic grit units, Cariboo Mts., British Columbia, 1980-.

1232
VERPAELST, P., PÉLOQUIN, S., Ministère de l'Énergie et des Ressources du Québec:
Stratigraphie des roches volcaniques du Groupe de Blake River, Abitibi, Québec, 1987-90.
Couverture de la partie est du centre de Duprat, échantillonnage, pétrographie, analyse géochimique, corrélation stratigraphique, structures associées aux zones de cisaillement.

PALEOZOIC/PALÉOZOÏQUE

1233
AITKEN, J.D., Geol. Surv. Can.:
Lower Paleozoic stratigraphy, southern rocky Mountains, Alberta and British Columbia, 1972-.

1234
BEAUCHAMP, B., Geol. Surv. Can.:
Upper Paleozoic stratigraphy and basin analyses of southern margin of Sverdrup Basin, Arctic Archipelago, 1987-.

1235
BÉLAND, J., TRZCIENSKI, W.E., MARQUIS, R., Université de Montréal (Géologie):
Stratigraphie, structure et métamorphisme de l'anticlinorium de Sutton, Estrie, Québec, 1984-88; thèse de doctorat (Marquis).
Analyses structurales et travaux pétrographiques en cours. Stratigraphie cohérente établie. Relations de l'écaille du Groupe d'Oak Hill aux unités lithotectoniques adjacentes à préciser.

1236
BERGERON, M., MAMET, B., Université de Montréal (Géologie):
Stratigraphie et microfacies carbonatés de la formation Mount Head, Alberta, 1985-; thèse de doctorat (Bergeron).
Étude Banc-Par-Banc de la formation Mount Head. Établir une zonation biostratigraphique en utilisant les foraminifères.

1237
BOLTON, T.E., Geol. Surv. Can.:
Silurian-Ordovician macrobiostratigraphy of Anticosti Island, Quebec, 1974-.
See:
Stromatoporoidea from the Ordovician rocks of central and eastern Canada; Geol. Surv. Can., Bull. 397, p. 17-28, 1988.

1238
BOURQUE, P.A., GIRGAB – Université Laval (Géologie):
Synthèse du Siluro-Dévonien de la Gaspésie, Québec, 1985-88.
Faire la synthèse stratigraphique et paléogéographique des roches siluriennes et dévoniennes de la région de la Gaspésie et du Témiscouata.

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CHANDLER, F.W., Geol. Surv. Can.:
Horton Group, Nova Scotia, 1987-.

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FRITZ, W.H., Geol. Surv. Can.:
Cambrian biostratigraphy of the Canadian Cordillera, 1965-.
See:
The status of *Salterella* as a Lower Cambrian index fossil; Can. J. Earth Sci., vol. 25, no. 3, p. 403-416, 1988.

1241
GELDSETZER, H.H.J., Geol. Surv. Can.:
Middle and Upper Devonian rocks in east-central British Columbia and west-central Alberta, 1979-.
See:
Sulfur-isotope anomaly associated with the Frasnian-Famennian extinction, Medicine Lake, Alberta, Canada; Geology, vol. 15, p. 393-396, 1987.

1242
GRANT, A.C., Geol. Surv. Can.:
Bedrock geology of Hudson Bay, 1987-.

See:
Bedrock geological mapping and basin studies in the Hudson Bay region; Geol. Surv. Can., Paper 88-1B, p. 287-296, 1988.

1243
HAIDL, F., Saskatchewan Geol. Surv.:
Geology of the Silurian Interlake Formation, Saskatchewan, 1986-.
See:
Stratigraphic and lithologic relationships, Interlake Formation (Silurian), southern Saskatchewan; Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 187-193, 1987.

1244
HARPER, J.D., Centre for Earth Resources Research, Memorial Univ.:
Regional geologic concepts and deep basin structure, Trenton-Black River groups, Michigan, Indiana, Ohio, Ontario, 1988-; Ph.D. thesis.
Major revision of Ordovician geology of Michigan, Ontario, Illinois, Indiana, Ohio based on subsurface data.

1245
HOWIE, R.D., Geol. Surv. Can.:
Compilation of geoscientific data in the Upper Paleozoic basins of southeastern Canada, 1971-.

1246
HUGHSON, R.C., STEARN, C.W., McGill Univ. (Geological Sciences):
Upper Silurian carbonates of Lake Memphremagog-Lime Ridge areas, Quebec, 1986-88; M.Sc. thesis (Hughson).
See:
Reversed craton-to-basin trend in the Silurian of the Quebec Appalachians; Geol. Soc. Amer., Programs with abstracts, vol. 19, p. 710, 1987.

1247
KNIGHT, I., BOYCE, D.R., JAMES, N.P., LANE, T., Newfoundland Dept. Mines and Energy, Queen's Univ. (Geological Sciences), Memorial Univ. (Earth Sciences):
Lower Paleozoic carbonates, western Newfoundland, 1976-.
See:
The stratigraphy of the Lower Ordovician St. George Group, western Newfoundland: the interaction between eustasy and tectonics; Can. J. Earth Sci., vol. 24, no. 10, p. 1927-1951, 1987.

Lower to Middle Cambrian terrigenous - carbonate rocks of Chimney Arm, Canada Bay: Lithostratigraphy, biostratigraphy and regional significance; Newfoundland Dept. Mines and Energy, Rept. 87-1, p. 359-365, 1987.

1248
KOBLUK, D.R., NOOR, I., Univ. Toronto (Erindale College):
Stratigraphic and paleoenvironments in the basal Ordovician sequence in southern Ontario, 1984-; Ph.D. thesis (Noor).

1249
MALO, M., INRS-Géoressoruces:
Stratigraphie de l'anticlinorium d'Aroostook-Percé, Québec.
L'anticlinorium d'Aroostook-Percé a été divisé, au Québec, en deux groupes: l'Honorat et le Matapédia. Le Groupe d'Honorat est divisé pour la première fois en deux Formations: l'Arsenault et le Garin. Le Group de Matapédia comprend les Formations de Pabos, qui est ici redéfinie, et de White Head. Un deuxième publication permet de déterminer l'âge de l'Honorat et de corréler ses formations à l'aide des graptolites.

1250
MAMET, B., TAILLEUR, L., Université de Montréal (Géologie), USGS:
Stratigraphie du Dévonien final et du Carbonifère, DeLong Mountains, Alaska, 1983-.

1251
MAMET, B., WATTS, K., Université de Montréal (Géologie):
Corrélations du Groupe de Lisburne, Sadlerochit et Shublik Mountains, Alaska, 1985-.

1252
MAYR, U., Geol. Surv. Can.:
Investigation of stratigraphy and tectonic development of lower Paleozoic Platform - miogeocline margin zone, District of Franklin, 1985-.

1253
McMECHAN, M.E., Geol. Surv. Can.:
Detailed geologic study of selected areas within the southern Foothills and Rocky Mountain Belts, 1987-.

1254
MEIJER-DREES, N.C., Geol. Surv. Can.:
Middle and Upper Devonian rocks in the subsurface of west-central Alberta, 1981-.

1255
MEIJER-DREES, N.C., Geol. Surv. Can.:
Middle and Upper Devonian stratigraphy in the subsurface of west central Alberta and northeastern British Columbia, 1986-.

1256
MORROW, D.W., Geol. Surv. Can.:
Lower Paleozoic stratigraphy and facies relationships in Wernecke, Ogilvie and Mackenzie Mountains, Yukon, 1985-.

1257
MOTT, J.A., DIXON, J.M., HELMSTAEDT, H., Queen's University (Geological Sciences):
Structure and stratigraphy of the White-River region, British Columbia, 1984-88; Ph.D. thesis (Mott).
See:
Stratigraphic and structural setting of intrusive diatreme breccias in the White River-Bull River area; British Columbia Ministry Mines, Energy, Petrol. Res., Paper 1988-1.

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NASSICHUK, W.W., Geol. Surv. Can.:
Stratigraphy and paleontology of upper Paleozoic rocks on parts of Ellesmere, Melville and Axel Heiberg Islands, District of Franklin, 1968-.

1259
NASSICHUK, W.W., Geol. Surv. Can.:
Upper Paleozoic stratigraphy, Melville Island, District of Franklin, 1984-.

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NORFORD, B.S., Geol. Surv. Can.:
Ordovician and Silurian biostratigraphy of British Columbia, Alberta, Manitoba, Yukon, Mackenzie and Franklin, 1961-.
See:
A bohemian-type Silurian (Wenlockian) pelecypod faunule from Arctic Canada; J. Paleontol., vol. 61, no. 3, p. 508-520, 1987.

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NORFORD, B.S., Geol. Surv. Can.:
Geochemical, sedimentological, biological and biostratigraphic changes across the Frasnian-Famennian boundary interval (Upper Devonian), 1985-.

1262
PEDDER, A.E.H., Geol. Surv. Can.:
Upper Silurian and Devonian biostratigraphy western and northern Canada, 1968-.

1263
RICHARDS, B.C., Geol. Surv. Can.:
Carboniferous stratigraphy and sedimentology of northeastern British Columbia and northwestern Alberta, 1981-.

1264
SANFORD, B.V., Geol. Surv. Can.:
Lower Paleozoic geology of Eastern Canada, 1975-.
See:
Paleozoic geology of the Hudson Platform; Can. Soc. Petrol. Geol., Mem. 12, p. 483-505, 1987.

Bedrock geological mapping and basin studies in the Hudson Bay region; Geol. Surv. Can., Paper 88-1B, p. 287-296, 1988.

Acoustic tests of seabottom core in Hudson Bay; ibid., p. 297-299, 1988.

1265
STEVENS, R.K., BOTSFORD, J., Memorial Univ. (Earth Sciences):
Lower Paleozoic stratigraphy, sedimentation and tectonics of the Appalachian Orogen; Ordovician graptolite studies; Ph.D. thesis (Botsford).
See:
Stratigraphy and correlation of the Cambro-Ordovician Cow Head Group, western Newfoundland; Geol. Surv. Canada, Bull. 366, 1987.

Work on Tremadocian graptolites is in progress, as is work on the Cow Head radiolaria.

1266
STRUIK, L.C., Geol. Surv. Can.:
Stratigraphy and tectonics of the western margin of the southern Omineca Belt, British Columbia, 1982-.

1267
SUCHY, D., STEARN, C.W., McGill Univ. (Geological Sciences):

The Attawapiskat reefs in the Hudson Bay basin, northern Ontario, 1987-90; Ph.D. thesis (Suchy).

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TRETTIN, H.P., Geol. Surv. Can.:
Stratigraphic-structural analysis of Proterozoic to Devonian rocks, northern Ellesmere and Axel Heiberg islands,District of Franklin, 1986-.
See:
Early Namurian (or older) alkali basalt in the Borup Fiord Formation, northern Axel Heiberg Island, Arctic Canada; Geol. Surv. Can., Paper 88-1D, p. 21-26, 1988.

1269
UTTING, J., Geol. Surv. Can.:
Paleozoic biostratigraphy and biofacies studies, Arctic Islands, District of Franklin, 1984-.

MESOZOIC/MÉSOZOIQUE

1270
ASCOLI, P., Geol. Surv. Can.:
Biostratigraphic zonation (Formaninifera-Ostracoda) of the Mesozoic and Cenozoic rocks of the Atlantic Shelf, 1971-.

1271
BANERJEE, I., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Basal Colorado Sandstone (Cretaceous), Cessford Field, southern Alberta, 1986-.

1272
CALDWELL, W.G.E., NORTH, B.R., LARSON, B.L., GRAMBO, G.P., HARRISON, S.A., Univ. Saskatchewan (Geological Sciences):
Biostratigraphic studies in the Cretaceous System of the Western Interior Basin, 1960-; Ph.D. thesis (Larson), M.Sc. theses (Grambo, Harrison).
Research focusses on the use of sequential foraminiferal faunas to establish biozones for the refinement of both the Lower and Upper Cretaceous Series in the southern Interior Plains of Canada and adjacent plains of the United States.

1273
CHRISTIE, R.L., Geol. Surv. Can.:
Eureka Sound project, 'fossil forest', 1987-.
See:
Field studies at 'fossil forest'sites in the Arctic Islands; Geol. Surv. Can., Paper 88-1D, p. 61-66, 1988.

1274
DIXON, J., Geol. Surv. Can.:
Geology of the Beaufort-Mackenzie Basin, 1979-.
See:
Structure of the southeast margin of the Beaufort-Mackenzie basin, Arctic Canada, from crustal seismic-reflection data; Geology, vol. 15, no. 10, p. 931-935, 1987.

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DIXON, J., Geol. Surv. Can.:
Stratigraphy and sedimentology of Jurassic-Cretaceous strata, northern Cordillera, Yukon, 1985-.
See:
Depositional setting of the Maastrichtian Cuesta Creek Member, Tent Island Formation, northern Yukon; Geol. Surv. Can., Paper 88-1D, p. 61-66, 1988.

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GIBSON, D.W., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Lower Cretaceous Hulcross and Boulder Creek formations, Rocky Mountain Foothills, Alberta and British Columbia, 1988-.

1277
GIBSON, D.W., Geol. Surv. Can.:
Triassic stratigraphic and sedimentologic studies, 1987-.

1278
GILBOY, C.F., Saskatchewan Geol. Surv.:
Geology of the Upper Colorado Group and the Milk River Formation (Upper Cretaceous) of southwestern Saskatchewan, 1986-.
See:
Aspects of the regional geological framework of low-permeability shallow gas reservoirs in Upper Cretaceous strata (Colorado and Montana Groups), southwestern Saskatchewan; Saskatchewan Geol. Surv., Misc. Rept. 87-4, p. 199-213, 1987.

1279
McNEIL, D.H., Geol. Surv. Can.:
Cretaceous-Tertiary biostratigraphy and paleoecology, polynomorphs and microfossils, 1985-.

1280
MOSSOP, G.D., SHETSEN, I., LOSERT, J., Alberta Research Council (Geological Survey):
Geological atlas of the Western Canada Sedimentary Basin, 1987-91.
To compile and produce a new atlas of the subsurface geology of the Western Canada Sedimentary Basin, for the entire Phanerozoic succession. Computing work has been centred on data testing and control points selection. Geological work has focussed on compilation of detailed regional cross-sections. Project sponsorship has expended beyond the Alberta Research Council, Alberta Energy and the Canadian Society of Petroleum Geologists to include the Geological Survey of Canada.

1281
ORCHARD, M.J., Geol. Surv. Can.:
Triassic conodont biostratigraphy, 1987-.
See:
Studies on the Triassic Kunga Group, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 229, 1988.

1282
POULTON, T.P., Geol. Surv. Can.:
Jurassic biostratigraphy of selected areas of western and Arctic Canada, 1976-.
See:
New molluscan faunas from the Late Jurassic (Kimmeridgian and early Tithonian) of western Canada; Geol. Surv. Can., Bull. 379, p. 103-109, 1988.

New developments and current research on Middle Jurassic ammonite biostratigraphy, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 233, 1988.

1283
POULTON, T.P., Geol. Surv. Can.:
Middle and Upper Jurassic biostratigraphy of Queen Charlotte Islands, British Columbia, 1987-.
See:
New developments and current research on Middle Jurassic ammonite biostratigraphy, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 233, 1988.

1284
POULTON, T.P., Geol. Surv. Can.:
Jurassic subsurface stratigraphy of Alberta, 1987-.

1285
STOTT, D.F., Geol. Surv. Can.:
Jurassic and Cretaceous Minnes Group, Alberta and British Columbia, 1978-.

1286
STOTT, D.F., Geol. Surv. Can.:
Syntheses of Mesozoic and Cenozoic rocks of eastern Cordillera and Plains, 1981-.

1287
TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Stratigraphy, structure and metallogeny of the northern part of the Intermontane Belt (Whitehorse trough) in the Canadian Cordillera, 1977-.
See:
"Antler" clastics in the Canadian Cordillera; Geology, vol. 15, no. 2, p. 103-107, 1987.

1288
TIPPER, H.W., Geol. Surv. Can.:
Biostratigraphic study of Mesozoic rocks in the Intermontane and Insular Belts of the Canadian Cordillera, 1975-.
See:
A note on the status of Lower Jurassic ammonite biostratigraphy and paleontology of Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 231, 1988.

1289
TIPPER, H.W., Geol. Surv. Can.:
Lower Jurassic ammonite biostratigraphy and paleontology of Queen Charlotte Islands, British Columbia, 1987-.
See:
A note on the status of Lower Jurassic ammonite biostratigraphy and paleontology of Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 231, 1988.

1290
WADE, J.A., Geol. Surv. Can.:
Regional subsurface geology of Mesozoic and Cenozoic rocks of the Atlantic continental margin, 1972-.

1291
WALL, J.H., Geol. Surv. Can.:
Mesozoic and Tertiary biostratigraphy and paleoecology, District of Franklin, 1985-.

1292
WALLACE-DUDLEY, K.E., Geol. Surv. Can.:
Stratigraphy and sedimentology of the Howard Creek, Pouce Coupe, and Doe Cree Sandstones, Kaskapau Formation (Upper Cretaceous, 1987-.

1293
YOUNG, H.R., MOORE, P.R., Brandon University (Geology), New Zealand Geol. Surv.:
Odanah Shale in southwestern Manitoba, 1985-.
See:
The siliceous Late Campanian Odanah Shale in southwestern Manitoba; Geol. Assoc. Can., Field Trip Guide Book: Stratigraphy of Albian to Campanian rocks in The Manitoba Escarpment, Pembina Mountain to Riding Mountain, p. 37-55, 1987.

CENOZOIC/CÉNOZOIQUE

1294
YORATH, C.J., Geol. Surv. Can.:
The Canadian Pacific continental margin, 1977-.

STRUCTURAL GEOLOGY/TECTONICS/GÉOLOGIE STRUCTURALE/TECTONIQUE

BRITISH COLUMBIA/ COLOMBIE-BRITANNIQUE

1295
BROWN, R.L., BARDOUX, M., CARR, S., JOHNSON, B., SCAMMELL, R., Carleton Univ. (Earth Sciences):
Structural investigations in the Canadian Cordillera; Ph.D. theses (Bardoux, Carr, Johnson, Scammell).
See:
Eocene structural development of the Valhalla complex, southeastern British Columbia; Tectonics, vol. 6, p. 175-196, 1987.
To establish the interrelationships of Mesozoic compressional tectonics and superimposed Cenozoic extension in the Omineca Belt of the southern Canadian Cordillera.

1296
CLAGUE, J.J., Geol. Surv. Can.:
Neotectonics, Queen Charlotte Islands, British Columbia, 1987-.

1297
HAMMACK, J., ROSS, J.V., Univ. British Columbia (Geological Sciences):
Microcracks and stylolite development at Overford Mtn., southeastern British Columbia, 1986-88, M.Sc. thesis (Hammack).
See:
Deformation mechanisms and secondary porosity at Overfold Mtn., southeastern British Columbia; Geol. Soc. Amer., Program with abstracts, vol. , p. , 1987.

1298
HYNES, A., MINEHAN, K., BELLEFONTAINE, K., McGill Univ. (Geological Sciences):
Evolution of the Terrane I/ North America Suture, north-central British Columbia, 1987-; M.Sc. thesis (Minehan, Bellefontaine).

1299
MURPHY, D., Univ. British Columbia (Geological Sciences):
Structural geometry and kinematics of deformation, Cariboo Mountains, British Columbia, 1980-.

1300
MURPHY, D., Univ. British Columbia (Geological Sciences):
Rheological structure of southeastern Canadian Cordillera, 1985-.

1301
PARRISH, R.R., Geol. Surv. Can.:
Tectonic investigations of the Valhalla Gneiss Complex and vicinity, southeast British Columbia, 1985-.

1302
ROSS, J.V., Univ. British Columbia (Geological Sciences):
Lousconne Fault system in Lyell Island, Queen Charlotte Islands, British Columbia, 1988-89.

1303
ROSS, J.V., LEWIS, P.D., Univ. British Columbia (Geological Sciences):
Geometry and deformation processes involved in the development of the Queen Charlotte basin, British Columbia, 1987-89; Ph.D. thesis (Lewis).

1304
SCAMMELL, R.J., DIXON, J.M., Queen's Univ. (Geological Sciences):
Structural and metamorphic evolution of the southern Scrip Range, north-central Shuswap Complex, British Columbia, 1988-91; Ph.D. thesis (Scammell).
To elucidate the thermotectonic evolution of rocks south of the Scrip Nappe, and north of the Monashee Complex, and investigate their regional relationships and implications for regional tectonic models.

1305
TAYLOR, G.C., Geol. Surv. Can.:
Structural and stratigraphic studies of northeast British Columbia, 1981-.

1306
THOMPSON, R.I., Geol. Surv. Can.:
Detailed geological study of selected areas within the Foothills and Rocky Mountain belts of the Monkman Pass map area - with emphasis on the structure, 1978-.

1307
THOMPSON, R.I., Geol. Surv. Can.:
Structural styles and tectonic evolution, Queen Charlotte region, British Columbia, 1987-.
See:
Late Triassic through Cretaceous geological evolution, Queen Charlotte Islands, British Columbia; Geol. Surv. Can., Paper 88-1E, p. 217-219, 1988.

1308
WOODSWORTH, G.J., Geol. Surv. Can.:
Tectonics east of Hecate Strait, 1987-.

ALBERTA/ALBERTA

1309
MACQUEEN, R.W., Geol. Surv. Can.:
Peace River Arch investigation, northwestern Alberta - northeastern British Columbia, 1987-.

MANITOBA/MANITOBA

1310
FROESE, E., Geol. Surv. Can.:
Structural studies, Thompson Belt, Manitoba, 1985-.

1311
GORDON, T.M., Geol. Surv. Can.:
Geological evolution of the southwest Churchill Province, Manitoba, 1985-.
See:
U-Pb zircon ages from the Lynn Lake and Rusty Lake metavolcanic belts, Manitoba: two ages of Proterozoic magmatism; Can. J. Earth Sci., vol. 24, no. 5, 1987.

1312
WILLIAMS, P.F., BLEEKER, W., VAN STAAL, C.R., Univ. New Brunswick (Geology), Geol. Surv. Can.:
Structural geology and deformational history of the Thompson Nickel Orebody and its environs, Thompson, Manitoba, 1986-88; Ph.D. thesis (Bleeker).
Based on observations in the Thompson Open Pit, a structural-metamorphic model has been proposed for the Thompson Nickel Belt. This model has been tested throughout the Belt and successfully combines all presently available data. Further aims are more detailed P.T. data for various localities and a detailed 3D reconstruction of the Thompson Mine environment.

NEW BRUNSWICK/ NOUVEAU-BRUNSWICK

1313
BURKE, K.B.S., STRINGER, P., Univ. New Brunswick (Geology):
Investigation of neotectonic features in southwestern New Brunswick, 1987-89.
Magnetometer and magnetic gradiometer traverses have been completed over known or projected positions of a southwest trending Lower Jurassic dyke in the northern Passamaquoddy Bay region of southwestern New Brunswick and southeastern Maine. Interpretation of the magnetic data shows that the dyke is offset by northwest trending sinistral faults on Orrs Head and in Mill Cove; however, the dyke is not offset by the major northwest trending Oak Bay Fault. Dextral offset of a few metres has been mapped in a coastal exposure of the dyke on the eastern side of Holts Point.

Known locations of glacial striae along coastal outcrops around northern Passamaquoddy Bay have been checked for post-glacial displacements, but none found. Structures observed in glacial deposits in some quarries in the region are not apparently related to bedrock structure. Exposures mapped so far of northwest trending faults lack overburden in which postglacial displacements could be detected. Therefore, the association of faults with recent seismicity remains to be demonstrated.

1314
CURRIE, K.L., Geol. Surv. Can.:
Diagenesis and structure of the Albert Formation, New Brunswick, 1985-.

1315
VAN STAAL, C.R., Geol. Surv. Can.:
Structural analyses of the northern part of the Miramichi Massif, New Brunswick, 1985-.
See:
Tectonic setting of the Tetagouche Group in northern New Brunswick: implications for plate tectonics models of the northern Appalachians; Can. J. Earth Sci., vol. 24, no. 7, p. 1329-1351, 1987.

Evidence for D_1-related thrusting and folding in the Bathurst-Millstream River area, New Brunswick; Geol. Surv. Can., Paper 88-1B, p. 135-148, 1988.

1316
WILLIAMS, P.F., ROBERTS, W., Univ. New Brunswick (Geology):
A structural analysis of the Denison Potacan Potash Company's Potash Ore Body at Clover Hill, Sussex, New Brunswick, 1987-; M.Sc. thesis (Roberts).
The Mississippian aged ore body is recumbently folded at various scales and local NE-SW striking faults, active during the Pennsylvanian, are believed to have played a major role in the fold development.

1317
WILLIAMS, P.F., McALLISTER, A.L., MORETON, C., Univ. New Brunswick (Geology):
Structural and stratigraphic relationships of the B-zone orebody, Heath Steele Mines, Newcastle, New Brunswick, 1984-89; Ph.D. thesis (Moreton).

NEWFOUNDLAND/LABRADOR/ TERRE-NEUVE/LABRADOR

1318
CAWOOD, P., WILLIAMS, H., GRENIER, R., Memorial Univ. (Earth Sciences):
Humber Arm Allochthon, western Newfoundland, 1984-87; M.Sc. thesis (Grenier).
See:
Variation in structural style along the Long Range Front, western Newfoundland; Geol. Surv. Can., Paper 88-1B, p. 127-134, 1988.
This project has resulted in mapping of the entire allochthon at a scale of 1:50,000 (or greater). Major Acadian basement thrusting and culmination collapse structures have been recognized at the Appalachian mountain front.

1319
CONNELLY, J.N., Newfoundland Dept. Mines and Energy, Memorial Univ. (Earth Sciences):
Tectonic evolution of the Lac Joseph Allochthon, southwestern Labrador; Ph.D. thesis.
Examine the tectonic and metamorphic evoluton of the Lac Joseph allochthon and terranes to the northwest.

1320
HYNES, A., PERRAULT, S., POIRIER, G., MOORHEAD, J., Mcgill Univ. (Geological Sciences):
Tectonic evolution of the Labrador Trough at 58°N, 1984-89; Ph.D. thesis (Perrault), M.Sc. theses (Poirier, Moorhead).

1321
WILLIAMS, H., CAWOOD, P., Memorial Univ. (Earth Sciences):
Terrane carving in central Newfoundland 1987-. Structural studies along Newfoundland onland Lithoprobe Line, 1988-.
See:
Tectonic-stratigraphic subdivisions of central Newfoundland; Geol. Surv. Can., Paper 88-1B, p. 91-98, 1988.

Dunnage Zone is separated into two major divisions - Notre Dame and Exploits Subzones.

1322
WILLIAMS, H., CAWOOD, P.A., KENNEDY, D., MARTINEAU, Y., GODFREY, S., GILLESPIE, R., QUINN, L., SCHILLEREFF, S., Memorial Univ. (Earth Sciences):
Investigation and mapping of entire Humber Arm Allochthon, western Newfoundland, 1986-87; M.Sc. theses (Kennedy, Martineau, Godfrey, Gillespie, Quinn).
See:
Geology, Humber Arm Allochthon, Western Newfoundland; Geol. Surv. Can., Map 1678A (1:250,000 scale), 1988.

Most of the Humber Arm Allochthon is covered by 1:50,000 scale maps on open file, Geological Survey of Canada. Summaries of investigations appeared annually in G.S.C. Current Research Part A.

1323
WILLIAMS, H., COLMAN-SADD, S., O'BRIEN, B.H., DICKSON, L., TUACH, J., CURRIE, K.L., HAYES, J., Memorial Univ. (Earth Sciences), Geol. Surv. Can.:
Tectonic-stratigraphic subdivisions in central Newfoundland, 1987-.
See:
Tectonic-stratigraphic subdivisions of central Newfoundland; Geol. Surv. Can., Paper 88-1B, p. 91-98, 1988.

Includes a study along the anticipated onland Lithoprobe line.

1324
WILLIAMS, P.F., CARON, A., Univ. New Brunswick (Geology):
Microstructural studies of the Dover Fault, northeastern Newfoundland, 1984-89; Ph.D. thesis (Caron).

1325
WILLIAMS, P.F., ELLIOTT, C., LAFRANCE, B., Univ. New Brunswick (Geology):
Structural and tectonic studies in Notre Dame Bay, north-central Newfoundland, 1982-; Ph.D. theses (Elliott, Lafrance).
See:
Fossil evidence for fault-derived stratigraphic repetition in the NE Newfoundland Appalachians; Can. J. EarthSci., vol. 24, p. 2337-2350, 1987.

NORTHWEST TERRITORIES/ TERRITOIRES DU NORD-OUEST

1326
ATKINSON, D., PADGHAM, W.A., Indian and Northern Affairs Canada (Geology Division):
Yellowknife volcanic belt mining district (85 J/E), 1988-90.

1327
CHRISTIE, R.L., Geol. Surv. Can.:
Structural and stratigraphy of the Paleozoic-Mesozoic basins of Melville and adjacent islands, District of Franklin, 1984-.

1328
CULLEN, R., FYSON, W.K., Univ. Ottawa (Geology):
Structures and metamorphism of volcanic and sedimentary rocks, Fenton Lake, Slave Province, Northwest Territories, 1985-88; M.Sc. thesis (Cullen).

1329
EMBRY, A.F., Geol. Surv. Can.:
Stratigraphy and structure of Arctic Continental Shelf, District of Franklin, 1984-.

1330
FYSON, W.K., Univ. Ottawa (Geology):
Structural patterns and tectonics of metamorphic terrains, Slave Province, 1972-.

1331
HANMER, S.K., Geol. Surv. Can.:

Displacement history of major shear zones in western Churchill Province, 1983-.
See:
Textural map units in quartzo-feldspathic mylonitic rocks; Can. J. Earth Sci., vol. 24, no. 10, p. 2065-2073, 1987.
Great Slave Lake shear zone meets Thelon Tectonic Zone, District of Mackenzie, N.W.T.; Geol. Surv. Can., Paper 88-1C, p. 33-49, 1988.

1332
HARRISON, J.C., Geol. Surv. Can.:
Structure and tectonics of Prince Patrick and adjacent islands, District of Franklin, 1986-.
See:
Field observations on the structural and depositional history of Prince Patrick Island and adjacent areas, Canadian Arctic Islands; Geol. Surv. Can., Paper 88-1D, p. 41-50, 1988.

1333
HENDERSON, J.R., Geol. Surv. Can.:
Geology of the Penrhyn Fold Belt, Melville Peninsula, District of Franklin, 1976-.

1334
HILDEBRAND, R.S., Geol. Surv. Can.:
Hottah Terrane, District of Mackenzie, 1982-.

1335
HILDEBRAND, R.S., Geol. Surv. Can.:
Central Great Bear Magnetic Zone, District of Mackenzie, 1986-.
See:
Tectono-magmatic evolution of the 1.9 Ga Great Bear magmatic zone, Wopmay Orogen, northwestern Canada; J. Volcanology and Geothermal Res., vol. 32, p. 99-118, 1987.
Geology of parts of the Calder River map area, central Wopmay Orogen, District of Mackenzie; Geol. Surv. Can., Paper 88-1C, p. 199-206, 1988.

1336
HOFFMAN, P.F., Geol. Surv. Can.:
Externides of Wopmay Orogen, District of Mackenzie, 1981-.

1337
KING, J.E., Geol. Surv. Can.:
Structural studies in the metamorphic hinterland of Wopmay Orogen, District of Mackenzie, 1985-.

1338
LANE, L.S., Geol. Surv. Can.:
Structural geology and tectonic and stratigraphic analyses, northern Mainland and adjacent continental shelf, District of Mackenzie, 1984-.
See:
Structure of the southeast margin of the Beaufort-Mackenzie Basin, Arctic Canada, from crustal seismic - reflection data; Geology, vol. 15, no. 10, p. 931-935, 1987.
The Rapid Vault Array: a foldbelt in Arctic Yukon; Geol. Surv. Can., Paper 88-1D, p. 95-98, 1988.

1339
MORGAN, J., PADGHAM, W.A., BROPHY, J.A., Indian and Northern Affairs Canada (Geology Division):
Indin Lake supracrustals 86 B/SW, 1988-90.

1340
OXULITCH, A.V., Geol. Surv. Can.:
Stratigraphy, structure and tectonics, Innuition Fold Belt, Ellesmere Island, District of Franklin, 1979-.

1341
PATTERSON, J.G., Univ. Toronto (Geology):
Tectonic evolution of the Hurwitz Group, Trans Hudson Orogen, 1988-; M.Sc. thesis.
Field work will commence summer 1988 to study sedimentology and tectonics of the Hurwitz Group.

1342
ROACH, D., FYSON, W.K., Univ. Ottawa (Geology):
Shear zones, Beniah Lake straight zone, Archean Slave Province, Northwest Territories, 1987-; Ph.D. thesis (Roach).

1343
STEPHENSON, R.A., Geol. Surv. Can.:
Structural, tectonic and stratigraphic anlaysis of the Arctic Islands, District of Franklin, 1985-.

1344
ST-ONGE, M.R., Geol. Surv. Can.:
Thrust-fold belt of Wopmay Orogen - internal zone, District of Mackenzie, 1981-.

1345
WILLIAMS, G.K., Geol. Surv. Can.:
Northern basin analysis program: Redstone and Great Slave Lake map-areas, District of Mackenzie, 1971-.

NOVA SCOTIA/NOUVELLE-ÉCOSSE

1346
CHANDLER, F.W., Geol. Surv. Can.:
Mabou Basin analysis, Nova Scotia, 1987-.

1347
KEPPIE, J.D., NORTHCOTE, K., Nova Scotia Dept. Mines and Energy:
Metallotectonic map of Nova Scotia, 1984-89.
See:
Metallotectonic map; Nova Scotia Dept. Mines and Energy, Rept. 87-1, p. 141-145, 1987.

1348
MURPHY, J.B., St. Francis Xavier Univ. (Geology):
Geology of the Antigonish and Cobequid Highlands, Nova Scotia, 1984-89.

1349
WHITE, J.C., GAO, R.X., YEO, G., Univ. New Brunswick (Geology), Geol. Surv. Can.:
Carboniferous Basin deformation, Stellarton, Nova Scotia, 1983-87; M.Sc. thesis (Gao).

1350
WILLIAMS, P.F., HWANG, S.C., KEPPIE, J.D., Univ. New Brunswick (Geology), Nova Scotia Dept. Mines and Energy:
Structural and metamorphic geology in Shelburne-Barrington area, Nova Scotia, 1985-; Ph.D. thesis (Hwang).
A detailed structural analysis of the area has provided evidence of post-Devonian major fault activity. Work is continuing on the complex structure and metamorphism.

1351
WILLIAMS, P.F., HY, C., Univ. New Brunswick (Geology):
Gold-bearing veins in Nova Scotia, 1985-.
The relationship between granitoids structure, metamorphism and veining is being studied.

ONTARIO/ONTARIO

1352
ARIAS, Z.G., Ontario Geol. Surv.:
Structural geology of the Goudreau-Lochalsh area, Michipicoten Greenstone Belt, Ontario, 1987-.
See:
Regional structural geology related to gold mineralization in the Goudreau-Lochalsh area: District of Algoma; Ontario Geol. Surv., Misc. Paper 137, p. 146-154, 1987.
Structural studies in an area approximately 40 km northeast of Wawa, Ontario focused on the recognition of regional deformation zones, their characteristics, and their association with gold mineralization. In progress is a report that will attempt to examine all observed structural elements and their economic significance.

1353
ARIAS, Z.G., HELMSTAEDT, H., Queen's Univ. (Geological Sciences):
Tectonic evolution of central and eastern Wawa Greenstone Belt, Ontario, 1988-; M.Sc. thesis (Arias).
To study the tectonic evolution of part of the Wawa greenstone belt and to establish how the shear zones that host auriferous quartz veins fit into the tectonic history. This may help establish the relative timing of mineralization, and lead us to understand the gold-hosting structural environment.

1354
HANMER, S.K., Geol. Surv. Can.:
Structural studies in the Grenville Province of Ontario and western Quebec, 1983-.

1355
MUMIN, A.H., ORAN, K., SCOTT, S.D., Univ. Toronto (Geology):
Tectonic and structural controls on massive sulfide deposition in the south Sturgeon Lake volcanic pile, northwestern Ontario, 1985-88; M.Sc. thesis (Mumin).
Hydrothermally altered rocks associated with the Lyon Lake Archean volcanogenic massive sulfide ore deposits, Sturgeon Lake, northwestern Ontario, 1987.
Projects demonstrate that tectonic forces and structures that control modern seafloor massive sulfide deposition also controlled ore deposition in ancient Archean terrain. The evolution of seawater to an ore-forming hydrothermal fluid is documented through altered volcanic rocks.

1356
PERCIVAL, J.A., Geol. Surv. Can.:
Geological and geophysical studies of the Kapuskasing structure, Ontario, 1985-.

1357
REID, R.G., REILLY, B.A., Ontario Geol. Surv.:
Precambrian geology of the Mishibishu Lake area, Ontario, 1987-88.
See:
Mishibishu Lake area, Districts of Algoma and Thunder Bay; Ontario Geol. Surv., Misc. Paper 137, p. 138-145, 1987.

1358
REILLY, B.A., Brock Univ. (Geological Sciences):
Structural analysis of the Paint Lake deformation zone, Northern Ontario, 1984-87; M.Sc. thesis.

1359
ROUSELL, D.H., TREVISIOL, D., HAYWARD, L., Laurentian Univ. (Geology):
Geology of the Grenville Front in the Wanapitei River area, Ontario, 1983-.
See:
Geometry and origin of reclined "similar" folds in mylonite; Canadian Tectonics Group, 7th Annual Meeting, 1987.
Studies of the Grenville Front in the Baby Lake area, Ontario; Geol. Assoc. Can., Program with abstracts, vol. 12, p. 85, 1987.

1360
SANBORN-BARRIE, M., Ontario Geol. Surv.:
The structure and tectonic evolution of the Central Lake of the Woods Greenstone Belt, northwestern Ontario, 1986-88.

1361
WHITE, O.L., McFALL, G., Ontario Geol. Surv.:
Field investigations of neotectonic features in Prince Edward County, southern Ontario, 1987-.
An Ontario Geological Survey's contribution to studies by the Multi-Agency Group for Neotectonics in Eastern Canada (MAGNEC). Interpretations of false colour infrared and black and white airphotographs are used as guides to field activities aimed at identifying structures in the Paleozoic strata that exhibit evidence of possible Neotectonic movement.

1362
WILLIAMS, H.R., BUCK, S., REILLY, B., SOO, K.Y., Ontario Geol. Surv.:
Structural studies in Wabigoon, Quetico and Wawa Subprovinces, Ontario, 1984-; M.Sc. theses (Buck, Reilly, Soo).
Paper entitled "Evolution of an Archean subprovince boundary: a sedimentological and structural study of part of the Wabigoon-Quetico boundary in northern Ontario" is in review. Further publications on thrusting, sturctural facing and ultramafic bodies are in progress. Regional deformation mechanisms are being studied.

QUÉBEC

1363
BARAGAR, W.R.A., Geol. Surv. Can.:
The tectonics of Archean and Proterozoic gneisses bordering the Ungava Trough, Québec, 1985-.

1364
BÉLAND, J., GOUTIER, J., Université de Montréal (Géologie):
Structure et stratigraphie du Groupe de Trinité-des-Monts de la culmination de Témiscouata-Rimouski Appalaches, 1986-88; these de maitrise (Goutier).
Assemblages lithotectoniques reconnus en partie limités par des mélanges (type wild flysch). Localités fossilifères nouvelles révélent âges cambrien inférieur et moyen. Failles de chevauchement et failles de décrochement. Tectonisation intense propre à une mise en place par chevauchement.

1365
BÉLAND, J., PERRAULT, G., GIGUÈRE, C., Université de Montréal (Géologie); Ecole Polytechnique:
Gitologie de la mine Sigma II, Abitibi, Québec, 1985-88; thèse de maitrise (Giguère).
Étude du mode fracturation à l'origine de veines aurifères quartrifères dans un filon couche de gabbro – granophyre. Cartographie détaillée en surface dans une exploitation à ciel ouvert.

1366
BÉLAND, J., PERRAULT, G., SAVOIE, A., Université de Montréal (Géologie), Ecole Polytechnique:
Gitologie de la mine Doyon, Abitibi, Québec, 1983-88; thèse de doctorat (Savoie).
Étude du mode fracturation à l'origine de veines aurifères dans une zone de cisaillement traversant diverses lithologies du Groupe de Blake River. Déformation "transpressive".

1367
BÉLAND, J., TRZCIENSKI Jr, W.E., MARQUIS, R., Université de Montréal (Géologie):
Structure, stratigaphie et métamorphisme du segment nord-est de l'anticlinorium de Sutton, Estrie, Québec, 1984-88.
See:
The Oak Hill Group, Richmond, Québec: Termination of the Green Mountains anticlinorium; Geol. Soc. Amer., Centennial Field Guide, Northeastern Section, p. 363-368, 1987.
Analyse structurale et travaux pétrographiques en cours. Stratigraphie cohérente établie. Relations de l'écaille du Groupe d'Oak Hill aux unités lithotectoniques adjacentes.

1368
HUBERT, C., BLOUIN, A., MARQUIS, R., Université de Montréal (Géologie):
Géologie structurale et mode mise en place des sulfures massifs à la Mine Dumagami, ceinture de l'Abitibi, Québec, 1987-90; these de doctorat (Blouin).
Déterminee la geologie structurale des épontes et de la minéralisation des sulfures massifs du gisement de Dumagami, Abitibi, Québec. Le projet necessitera deux autres années pour être complété.

1369
HUBERT, C., BLOUIN, A., TOURIGNY, G., Université de Montréal (Géologie):
Géologie structurale et minéralisation à la Mine Bousquet, ceinture de l'Abitibi, Québec, 1985-88; thèse de doctorat (Tourigny).
Voir:
Structural geology of the Blake River Group on the Bousquet property, Abitibi, Québec; Can. J. Earth Sci., vol. 23, no. 4, 1988.
Établir les contrôles structuraux sur la minéralisation aurifère du gisement de la Mine Bousquet en Abitibi. Étude la minéralisation et du métamorphisme des épontes.

1370
HUBERT, C., QUIRION, D., Université de Montréal (Géologie):
Étude structurale de la zone S-50 de la Mine Kiena, Abitibi, Québec, 1985-88; thèse de maitrise (Quirion).
Étude de la structure du gisement S-50, niveau 33 à la Mine Kiena, ceinture de l'Abitibi, Québec.

1371
HUBERT, C., SANSFAÇON, R., Université de Montréal (Géologie):
Analyse structurale du camp minier de Malartic, ceinture de l'Abitibi, Québec, 1985-90; thèse de doctorat (Sansfaçon).
Détermination et évaluation des contrôles structuraux des gisements aurifères du camp minier de Malartic, Abitibi, Québec.

1372
MARQUIS, R., Université de Montréal (Géologie):
L'anticlinorium des Monts Sutton dans la région de Richmond, Québec, 1983-88; thèse de doctorat.
Voir:
The Oak Hill Group, Richmond, Québec: Termination of the Green Mountains – Sutton Mountains Anticlinorium; GSA Centennial Field Guide, Northeastern Section, 1987.
Termination of the Sutton Mountains – Green Mountains Anticlinorium in southern Quebec; Geol. Soc. Amer. Northeastern Section, Abstract with programs, 1987.
Les travaux de terrain sont complétés (1984-1987) actuellement en rédaction. Dépôt prévu – mai 1988.

1373
MARTIGNOLE, J., Université de Montréal (Géologie):
Étude de la zone de cisaillement de Labelle (Province de Grenville – Québec), 1988-89.

1374
MARTIGNOLE, J., BRADSHAW, D., Université de Montréal (Géologie):
Mise en place et déformation du métagabbro de bouchette, 1987-88; thèse de maitrise (Bradshaw).
Une trentaine de déterminations thermobarométriques déjà obtenues. Petrofabrique du cours dans les zones de cisaillement pour déterminer les sens de mouvement.

1375
MARTIGNOLE, J., CAMION, E., Université de Montréal (Géologie):
Le Supergroupe de Wakeham, Québec, 1985-88; thèse de maîtrise (Camion).
Étude métamorphique du Supergroupe de Wakeham (Province de Grenville). Relation avec le sousbassement et avec le massif anorthosique de Havre St-Pierre.

1376
MARTIGNOLE, J., INDARÈS, A., Université de Montréal (Géologie), IREM:
Cartographie et tectonique du Supergroupe de Wakeham, Province de Grenville, Québec, 1986-87.

1377
ST-ONGE, M.R., Geol. Surv. Can.:
Cape Smith Fold-Thrust Belt, east end, Quebec, 1985-.
See:
Thin-skinned imbrication and subsequent thick-skinned folding of rift-fill, transitional-crust, and ophiolite suites in the 1.9 Ga Cape Smith Belt, northern Quebec; Geol. Surv. Can., Paper 88-1C, p. 1-18, 1988.

1378
TRUDEL, C., MALO, M., ST-JULIEN, P., Université Laval (Géologie), INRS - Géoressources:
Étude structurale des failles acadiennes dans la région de Matapédia, Québec, 1987-89; thèse de maîtrise (Trudel).
L'objectif est de comprendre la nature des grandes failles de la région de Matapédia (failles de Ristigouche et de Sellarsville) et leur relation avec la faille du Grand Pabos qui est un décrochement dextre dans l'est de la péninsule gaspésienne.

YUKON TERRITORY/ TERRITOIRE DU YUKON

1379
MURPHY, D., Univ. British Columbia (Geological Sciences):
Bedrock geology, Gravel Creek (105B/10) and Irvine Lake (105B/11) map-areas, southern Yukon, 1987-.

1380
TEMPELMAN-KLUIT, D.J., Geol. Surv. Can.:
Stratigraphy, structure and metallogeny of Pelly Mountains, and Yukon Plateau, Yukon Territory, 1973-.

GENERAL/GÉNÉRALITÉS

1381
BELL, J.S., Geol. Surv. Can.:
Lithospheric stress in Canada (with special emphasis on sedimentary basins), 1987-.
See:
Subsurface in situ stress magnitude from oil-well drilling records: an example from the Venture area, offshore eastern Canada; Can. J. Earth Sci., vol. 24, no. 9, p. 1748-1759, 1987.

1382
CHAPMAN, D., Geol. Surv. Can.:
Tectonics of Canadian Cordillera/offshore, 1986-.

1383
DIXON, J.M., Queen's Univ. (Geological Sciences):
Centrifuge modelling of foreland folding and thrusting, 1984-.
An investigation of the influences of stratigraphy on the formation and propagation of folds and thrust faults, using analog modelling in a 20,000-g centrifuge.

1384
DIXON, J.M., Queen's Univ. (Geological Sciences):
Centrifuge modelling of the structural envelope around salt diapirs, 1987-.

1385
FADER, G.B., Geol. Surv. Can.:
Bedrock and surficial geology, Grand Banks, 1973-.
See:
The geological structure and distribution of Paleozoic rocks on the Avalon Platform, offshore Newfoundland; Can. J. Earth Sci., vol. 24, no. 7, p. 1412-1420, 1987.

1386
FILLIPANE, J., ROSS, J.V., Univ. British Columbia (Geological Sciences):
Flow law(s) for lower crustal materials as exemplified by pyroxene granulite, 1987-89; Ph.D. thesis (Fillipane).

1387
HYNES, A., FRANCIS, D., CROSSLEY, D., McGill Univ. (Geological Sciences):
Evolution of the Hudson Bay Arc, 1988.

1388
LAMBERT, R.St.J., SMITH, D.G.W., LERBEKMO, J.F., Univ. Alberta (Geology):
The Eagle Butte, Alberta impact structure, 1987-89.
Work by a University of Alberta undergraduate student, Miss Stella Eseji-Okoye, while employed in oil exploration work documented for the first time the presence of shatter cones towards the centre of Eagle Butte. Whilst this ring structure had been thought previously to be of impact origin, no definitive evidence had been obtained. A study is now under way of the age relationships and the extent of deformation of the surrounding strata.

1389
LIU, S., DIXON, J.M., Queen's Univ. (Geological Sciences):
Centrifuge modelling of thrust-fault propagation and formation of thrust ramps; 1986-89; Ph.D. thesis (Liu).

1390
NUTMAN, A.P., FRIEND, C.R.L., McGREGOR, V.R., Memorial Univ. (Earth Sciences):
Studies of the North Atlantic Archaean Craton.
See:
Late Archaean tectonics in the Faeringehavn - Tre Brodre area, Buksefjorden, southern West Greenland; J. Geol. Soc. Lond. vol. 144, p. 369-376, 1987.

1391
RIVERS, T., MARTIGNOLE, J., GOWER, C.F., DAVIDSON, A., Memorial Univ. (Earth Sciences):
A new tectonic division of the Grenville Province, 1986-88.

1392
ROHR, K., Geol. Surv. Can.:
The structure of the Earth in Western Canada, 1986-.

1393
ROSS, J.V., Univ. British Columbia (Geological Sciences):
Mechanisms of deformation and fabric evolution in synthetic mylonites, 1986-89.
See:
Evolution of synthetic anhydrite-halite mylonites; Tectonophysics, vol. 140, 1987.

1394
ROSS, J.V., BUSTIN, R.M., Univ. British Columbia (Geological Sciences):
Flow law and mechanism(s) of deformation in anthracite and high volatile coal, 1987-89.

1395
ROSS, J.V., FILLIPANE, J., Univ. British Columbia (Geological Sciences):
Evolution of mylonitic fabrics in granitic rocks under experimental conditions of simple shear and variable temperature, confining pressure and strain rate, 1988-.

1396
ROSS, J.V., LEWIS, P.D., Univ. British Columbia (Geological Sciences):
Evidence for semi-brittle behaviour in crustal rocks, 1987-88.

1397
SOUTHER, J.G., Geol. Surv. Can.:
Study of the Cenozoic evolution of the western Cordillera, 1977-.
See:
Nazko cone: a Quaternary volcano in the eastern Anahim Belt; Can. J. Earth Sci., vol. 24, no. 12, p. 2477-2485, 1987.

1398
SRIVASTAVA, S.P., Geol. Surv. Can.:
Comparative studies of the continental margins of the Labrador Sea and of the North Atlantic, 1978-.

1399
STOCKMAL, G., Geol. Surv. Can.:
Regional geologic and plate tectonics history of the Canadian Appalachians, 1985-.
See:
Collision along an irregular margin: a regional plate tectonic interpretation of the Canadian Appalachians; Can. J. Earth Sci., vol. 24, no. 6, p. 1098-1107, 1987.

Deep crustal structure and evolution of the rifted margin northeast of Newfoundland results from LITHOPROBE East; ibid., p. 1537-1549, 1987.

1400
SWEENEY, J., Geol. Surv. Can.:
Cordilleran structure and tectonic evolution, 1986-.

1401
WHITE, J.C., MAITLAND, W., Univ. New Brunswick (Geology):
Deep-crustal deformation processes, 1982-; M.Sc. thesis (Maitland).
See:
Dynamic recrystallization and associated exsolution in perthites: Evidence of deep crustal thrusting; J. Geophys. Res., vol. 93, p. 325-337, 1988.

1402
WHITE, J.C., MAWER, C.K., Univ. New Brunswick (Geology), Univ. New Mexico:
Appalachian faulting and deformation, 1982-87.
See:
Sense of displacement on the Cobequid-Chedabucto Fault System, Nova Scotia, Canada; Can. J. Earth Sci., vol. 24, p. 217-223, 1987.

1403
WILLIAMS, H.R., Ontario Geol. Surv.:
Tectonic studies in western Sierra Leone, 1973-86.
Paper accepted by J. African Earth Sciences entitled "Geology and mineral chemistry of the Bantoro Leucogabbro, Kasila Group, western Sierra Leone".

1404
WILLIAMS, P.F., PRICE, G.P., Univ. New Brunswick (Geology), C.S.I.R.O., Melbourne, Australia:
Experimental study of shear zones, 1986-.

1405
WILLIAMS, P.F., PRICE, G.P., Univ. New Brunswick (Geology), C.S.I.R.O., Melbourne, Australia:
Development of automated techniques of fabric study, 1987-.

1406
WILLIAMS, P.F., VERNON, R.H., Univ. New Brunswick (Geology), MacQuarrie Univ., Australia:
Ductile shear zones and granite gneisses, Broken Hill, Australia, 1986-.
A study of complex ductile faults and of the origin of deformed rocks of granitic composition.

1407
WILSON, B.C., HELMSTAEDT, H., DIXON, J.M., Queen's Univ. (Geological Sciences):
Deformation and intrusion, 1982-88, Ph.D. thesis (Wilson).

VOLCANOLOGY/VOLCANOLOGIE

1408
BOSTOCK, H.H., Geol. Surv. Can.:
Volcanic rocks of the Appalachian region, 1973-.

1409
EASTON, R.M., Ontario Geol. Surv.:
Volcanic synthesis of the Central Metasedimentary Belt, Grenville Structural Province, Ontario, 1987-92.
See:
Pyroclastic fans - characteristics and significance; Geol. Assoc. Can. - Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 39, 1987.
Carbonate sedimentation and its relationship to volcanism in the western Central Metasedimentary Belt, Grenville Province, Ontario; ibid., p. 40, 1987.

1410
HAMILTON, T.S., Geol. Surv. Can.:
Volcanic rocks of the Insular Belt and adjacent deep ocean, British Columbia, 1982-.

1411
HOY, T., ANDREW, K.P.E., British Columbia Ministry Energy, Mines, Petrol. Res.:
Geology, geochemistry and contained mineral deposits of the Rossland Group, southeastern British Columbia, 1987-90.
See:
Preliminary geology and geochemistry of the Elise Formation, Rossland Group, southeastern British Columbia; British Columbia Ministry Energy, Mines, Petrol. Res., Paper 1988-1, p. 19-30, 1988.
To develop a better understanding of the structural and stratigraphic controls of gold mineralization in the Rossland Group, and to determine the internal stratigraphy and depositional environment of both volcanic and sedimentary rocks of the group.

1412
KOLISNIK, A.M., PEARCE, T.H., Queen's Univ. (Geological Sciences):
Petrography and petrogenesis of andesitic and dacitic lavas of Volcán Popocatepetl, Mexico, 1988-89; M.Sc. thesis (Kolisnik).
See:
Magma mixing textures in zoned volcanic phenocrysts, Volcán Popocatepetl, Mexico; Geol. Assoc. Can. - Mineral. Assoc. Can., Program with abstracts, vol. 13, p. A68, 1988.
Zoned phenocrysts from Volcán Popocatépetl, Trans-Mexican Volcanic Belt: Laser interferometric studies; Geol. Assoc. Can. - Mineral. Assoc. Can., Program with abstracts, vol. 12, p. 63, 1987.
A petrogenesis involving magma mixing is inferred from phenocryst zoning profiles, solution textures and disequilibrium assemblages.

1413
PADGHAM, W.A., ENGE, A., Indian and Northern Affairs Canada (Geology Division):
Study of pillowed rhyo-dacite of the Niven Lake member of the Townsite Formation, 1987-.
Pillowed quart rich dacites samples for chemical anlayeis and thin section examiantion.

1414
MOORE, J.M., HARNOIS, L., BARTLETT, J.R., Carleton Univ. (Ottawa-Carleton Geoscience Centre):
Volcanic assemblages of the Elzevir Terrane, Grenville Province, southeastern Ontario, 1984-; M.Sc. thesis (Bartlett).
Major and trace element geochemical data, stratigraphy and criteria of eruptive style and environment have been compiled for the Tudor/Mazinaw Lake, Kashwakamak, Shovel Lake, Turriff and Belmont Lake metavolcanic rocks. These vary from relatively thick (>4km), uniform submarine low-K tholeiitic basalts and andesitic basalts (Tudor, Turriff, Belmont) thorugh bimodal tholeiitic andesite-rhyolite (Mazinaw), to true calc-alkaline basalt-andesite-dacite-rhyolite (Kashwakamak, Shovel Lake, Turriff, Belmont). The low-K tholeiites are the most widespread and the earliest eruptions (ca. 1290Ma); their base has not been discovered. They were succeeded in places by more differentiated tholeiites, by volcanogenic and carbonate sedimentary rocks, and abruptly by thick calc-alkaline accumulations of more central type, that were initially subaqueous and dominated by flows but built pyroclastic/epiclastic edifices that were at least locally emergent. Thick shallow-water, carbonate-dominated sedimentary facies accompanied and succeeded the calc-alkaline rocks; sulphide-rich exhalites and vein deposits at this stage testify to submarine geothermal activity. The calc-alkaline rocks belong, at least in part, to a distinctly younger suite, extruded ca. 1250Ma, in approximate concurrence with the emplacement of tonalite-granodiorite batholiths and a variety of smaller, more heterogeneous intrusive bodies, some of which were emplaced at high level.
Although these diverse volcanic associations cannot be entirely reconciled using existing data, their stratigraphy and

chemistry suggest that: 1) there is no evidence of sialic basement to the tholeiites; 2) the main variations in the basalts are consistent with different amounts of partial melting, combined with inhomogeneity of the source; and 3) the calc-alkaline suites cannot have been derived from the basalts, and are the earliest members of the succession bearing the imprint of subjacent sialic crust. A plausible, albeit unproven, genetic model is that of a magmatic arc (and back-arc?) complex that began its evolution on oceanic crust and subsequently was accreted to a continental margin. These episodes in the history of the Central Metasedimentary Belt constitute the "Elzevirian Orogeny".

1415
ROOTS, C.F., MOORE, J.M., Carleton Univ. (Ottawa-Carleton Geoscience Centre):
The Mount Harper Volcanic Complex, Ogilvie Mountains, Yukon, 1982-88; Ph.D. thesis (Roots).
See:
Extension and its influence on Canadian Cordilleran passive-margin evolution, Geol. Soc. Sp. Publ., no. 28, p. 409-17, 1987.

Regional extension of the proto-Pacific Margin of North America at ca 775 Ma led to the building of a tholeiitic seamount, that evolved to a partly subaerial, basalt-rhyolite edifice.

1416
SIRAGUEA, G.M., Ontario Geol. Surv.:
Geology and mineralization of the southern margin of the Sivarga Belt, Ontario, 1980-.

1417
SWINAMER, R.T., PEARCE, T.H., Queen's Univ. (Geological Sciences):
The geomorphology, petrology, geochemistry and petrogenesis of the Sierra Del Chichinautzin, Mexico, 1984-88; M.Sc. thesis (Swinamer).

1418
VAN WAGONER, N.A., LEYBOURNE, M., Acadia Univ. (Geology):
Volcanism and geochemistry of the Endevour Ridge-Juan de Fuca Ridge System, 1987-.
To determine and compare volcanic processes on the valley floor of the ridge, at seamounts, and at nearby fracture zone.

1419
VAN WAGONER, N.A., McNEIL, W., Acadia Univ. (Geology):
Volcanology and geochemistry of the Lower Devonian Eastport Formation, Passamaquoddy Bay, southwestern New Brunswick, 1984-.
See:
Stratigraphy and volcanology a portion of the Lower Devonian volcanic rocks of southwestern New Brunswick; Geol. Surv. Can., Paper 88-1B, p. 69-78, 1988.

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LIST OF GRANT AWARDS IN THE EARTH SCIENCES FOR 1987-88/ LISTE DES SUBVENTIONS ATTRIBUEES AUX SCIENCES DE LA TERRE EN 1987-88

Department of Energy, Mines and Resources, Research Agreements 1987-88/ Ministère de l'Énergie, des Mines et des Ressources, conventions de recherche 1987-88

BRITISH COLUMBIA

University of British Columbia

Bovis, M.J. (Geography)
Rockslope deformation in the southern Coast Mountains, British Columbia, $7,800.00.

Calvert, S.E. (Oceanography)
Geochemistry of oceanic ferromanganese deposits, $7,000.00.

Clowes, R.M. (Geophysics and Astronomy)
Endeavour segment of Juan de Fuca Ridge: crustal structure from seismic refraction studies, $10,000.00.

Ellis, R.M. (Geophysics and Astronomy)
Analysis and interpretation of Kapuskasing Structural Zone refraction data, $9,000.00.

Simon Fraser University

Huntley, D.J. (Physics)
Laser dating of sediments, $6,000.00.

University of Victoria

Tunnicliffe, V. (Biology)
Time-lapse camera measurements of sulphide accumulation at hydrothermal vents, $2,500.00.

Van der Flier-Kell, E. (Geography)
Platinum potential of the Tulameen coal deposit, southwestern British Columbia, $8,000.00.

ALBERTA

University of Alberta

Baadsgaard, H. (Geology)
Geochronology and petrogenesis of the Archean Kamisak Lake Alkaline Intrusion and the surrounding country rock, $5,500.00.

Burwash, R.A. (Geology)
Western Canada Basin heat generation data base, $6,000.00.

Chatterton, B.D.E. (Geology)
Conodont biostratigraphy and paleoecology of the Famennian Palliser Formation and subsurface equivalents, Alberta and British Columbia, $3,000.00.

Cruden, D.M. (Geology)
Geotechnical characterization of materials in slope movements in the Cordillera, $8,000.00.

England, J. (Geography)
Mapping of surficial geology and reconstruction of Late Quaternary history, Phillips Inlet/Wootton Peninsula, northwest Ellesmere Island, $8,000.00.

Lerbekmo, J.F. (Geology)
Upper Cretaceous - Paleocene magnetostratigraphic and geochemical correlations, $4,000.00.

Nesbitt, B.E. (Geology)
Evaluation of the origin of mesothermal gold-quartz veins of the Canadian Cordillera, $7,600.00.

Univeristy of Calgary

Cook, F.A. (Geology and Geophysics)
Enhanced interpretation of Lithoprobe southern Canadian Cordillera reflection data, $10,000.00.

Hills, L.V. (Geology and Geophysics)
Charophyta of Canada, $4,000.00.

Hutcheon, I. (Geology and Geophysics)
Mass transport in the Fort St. John Group, $8,000.00.

Simony, P.S. (Geology and Geophysics)
Tectonics and Metamorphism in North Thompson Area, British Columbia, $12,500.00.

Alberta Research Council

Edwards, D. (Mineral Resources)
Construction aggregate survey and projection study, $7,000.00.

Hamilton, W.N. (Geological Survey)
Evaluation of mineral requirements for major industries and availability in Alberta and adjacent regions, $7,000.00.

SASKATCHEWAN

University of Saskatchewan

Gendzwill, D. (Geological Sciences)
Natural and induced seismicity in Saskatchewan, $15,000.00.

Hajnal, Z. (Geological Sciences)
Processing and analysis of 1986 Great Lakes seismic data, $8,000.00.

Paulson, K.V. (Physics)
Application of magnetotellurics to mineral and hydrocarbon exploration: I. Canonical decomposition and maximum entropy inversion, $5,000.00.

ONTARIO

Brock University

Brand, U. (Geological Sciences)
Cathode petrography and geochemistry of the Onodaga Formation, Southern Ontario and western New York, $3,000.00.

Cheel, R.J. (Geological Sciences)
A study of the sedimentology of the Cypress Hills Formation (Oligocene), southeastern Alberta and southwestern Saskatchewan, $4,000.00.

Carleton University

Brown, R.L. (Geology)
The Monashee decollement and its structural relationship to the Valhalla Complex of southeastern British Columbia, $10,500.00.

Csorgo, M. (Mathematics and Statistics)
Weighted empirical and quantile processes and their applications to the study of random sequences, $5,000.00.

Taylor, R.P. (Geology)
Rubidium-strontium and samarium-neodymium isotope systematics of fluorites from the Mount Pleasant Tungsten-Molybdenum-Tin deposit, New Brunswick, $4,000.00.

Yole, R.W. (Geology)
Stratigraphy, petrography and environmental analysis of Late Paleogene sediments, Mackenzie Delta - Beaufort Shelf area, N.W.T., $8,780.00.

Yole, R.W. (Geology)
Stratigraphy, petrography, diagenesis and reservoir properties of Upper Jurassic sandstones, Grand Banks, Offshore Eastern Canada, $8,280.00.

Lakehead University

Roddy, D. (Electrical Engineering)
Subsurface data analysis, $6,390.00.

Laurentian University

Rubin, G.A. (Physics)
Weakening and fragmentation of hardrock by high-power sonic or ultrasonic resonance, $10,000.00.

McMaster University

Clifford, P.M. (Geology)
Structural, chemical and isotopic study of a Proterozoic hydrothermal centre, near Killarney, Ontario, $5,000.00.

Crocket, J.H. (Geology)
Precious metals in volcanic exhalates from the Juan de Fuca Plate, $8,100.00.

Heidebrecht, A.C. (Civil Engineering)
Site-specific earthquake ground motion records and related design base shears for Canadian cities, $7,000.00.

Middleton, G.V. (Geology)
Hydrodynamics and sedimentary processes at small tidal inlets, Prince Edward Island, $9,500.00.

Schwarcz, H.P. (Geology)
Electron spin resonance dating of mollusc shells from Pleistocene of Arctic Canada, $6,000.00.

Queen's University

Archibald, D.A. (Geological Sciences)
Argon 40-Argon 39 study of Cretaceous igneous rocks, Taseko Lakes area (920), British Columbia, $2,000.00.

Schulze, D.J. (Geological Sciences)
An investigation of the petrology and tectonic setting and significance of diatreme breccias and their mantle and basement xenoliths, southeast British Columbia, $5,900.00.

Smol, J.P. (Biology)
Fossil cladoceran assemblages in lake sediment stratigraphies from the Canadian High Arctic, $5,000.00.

Royal Ontario Museum

Dunning, G.R. (Mineralogy and Geology)
Uranium-Lead geochronology of metamorphic complexes, Newfoundland Appalachians, $5,000.00.

Wicks, F.J. (Mineralogy and Geology)
The mineralogy and geochemistry of the serpentinized ultramafic bodies of the Manitoba Nickel Belt, $8,500.00.

University of Toronto

Bailey, R.C. (Geology and Physics)
Interpretation method for magnetotelluric data contaminated by surface distortion effects, $7,000.00.

Davis, D.W. (Geology)
Precise U-Pb age constraints on the tectonic evolution of the western Wabigoon Subprovince, Superior Province, Ontario, $7,000.00.

Dunlop, D.J. (Geophysics)
Chemical magentization and remagnetization of sedimentary and metamorphic rocks, $7,000.00.

Naldrett, A.J. (Geology)
Behaviour of PGE during fractional crystallization and mantle melting and their use as an exploration guide, $10,500.00.

Norris, G. (Geology)
Miocene palynostratigraphy of ODP Leg 105, Site 645 (Baffin Bay) and Paleogene palynostratigraphy of ODP Leg 105, Site 647 (Labrador Sea), $8,000.00.

Rucklidge, J.C. (Geology)
Feasibility study for the measurement of iodine isotope 129 for the potential dating of hydrocarbon reservoirs, $4,000.00.

Scott, S.D. (Geology)
Gold in volcanogenic massive suphide deposits, $6,500.00.

University of Waterloo

Franklin, J.A. (Earth Sciences)
Digital photoanalysis of rock jointing, $15,000.00.

Frape, S.K. (Earth Sciences)
An evaluation of the proposed mantle-crustal component to oil and gas accumulations in sedimentary basins of Southwest Ontario, $5,000.00.

University of Western Ontario

MacRae, N.D. (Geology)
Rare earth elements in whole rocks and selective minerals of Topsails Igneous Terrane, Newfoundland, $3,000.00.

Mansinha, L. (Geophyics)
Resolution in Mise-a-la-Masse Electrical Exploration, $5,000.00.

Mereu, R.F. (Geophysics)
Interpretation of data from the 1986 Great Lakes Seismic Experiment, $9,000.00.

Palmer, H.C. (Geophysics)
Paleomagnetism applied to the tectonic development of the Stikine Terrane, $9,500.00.

Plint, A.G. (Geology)
Upper Cretaceous Event-Stratigraphy: A case study in the Muskiki and Bad Heart formations, Alberta and B.C., $5,000.00.

University of Windsor

Simpson, F. (Geology)
Cross-formational flow of groundwater related to solution-generated collapse (SGC) structures, $5,000.00.

QUÉBEC

INRS Rimouski

Boczar-Karakiewicz, B. (Oceanology)
Formation of sand ridges on the Continental Shelf by progressive surface waves (with applications to the Scotian Shelf Sable Island Bank), $6,500.00.

Koutitonsky, V.G. (Océanologie)
Etude du cône deltaique de la rivière Natashquan: Hydrodynamique et transport de sédiments, $8,500.00.

INRS Sainte-Foy

Schrijver, K. (Géoressources)
Indices de grès plombifères des Appalaches du Québec: géologie et importance métallogénique, $7,000.00.

Université Laval

Allard, M. (Centre d'études nordiques)
Etude en suivi du peregélisol côtier, détroit de Manitounuk, Québec, $8,300.00.

Filion, L. (Géographie)
Analyse dendrochronologique des glissements de terrain de la vallée de la rivière du Gouffre, Charlevoix, Québec, $7,800.00.

McGill University

Doig, R. (Geological Sciences)
A paleoseismic method based on abnormal silting in lake sediments, $4,000.00.

Doig, R. (Geological Sciences)
Geochronology of granite rocks of the southern Quebec Appalachians, $4,000.00.

Francis, D. (Geological Sciences)
The marginal rocks of the Muskox Intrusion, N.W.T., $8,000.00.

Granberg, H.B. (Geography)
Schefferville permafrost research, $5,000.00.

Hesse, R. (Geological Sciences)
Mid-Ocean channel processes, Labrador Sea, $4,600.00.

Hynes, A. (Geological Sciences)
Tectonic evolution of the Labrador Trough at 58°W, $8,000.00.

Jensen, O.G. (Geological Sciences)
Geological mapping in tropical terranes by transient AEM (Airborne Electromagnetic) systems, $5,000.00.

Mountjoy, E.W. (Geological Sciences)
Tectonothermal evolution of Miette Group strata, northern Park Ranges, eastern British Columbia (parts of 83 D/7, 8, 9, 10 and 15), $10,500.00.

Université de Montréal

Gray, J.T. (Geography)
Quaternary studies in the Cap de la Nouvelle-France sector of northern Ungava, $9,000.00.

Hubert, C. (Géologie)
Étude structurale des gisements aurifères de Bousquet Dumagami, du district de Malartic, de Kiena-Callahan de Mobrum-Yvan Vézina (Destor) de la propriété Vior, et de Golden Pond East-Agnico Eagle, et leur intégration dans un contexte de tectonique globale de la ceinture de l'Abitibi, $11,500.00.

Mamet, B. (Geology)
Carboniferous foraminifers and algae, Saskatchewan, Alberta and Districts of Mackenzie and Franklin, $6,000.00.

Martignole, J. (Géologie)
Evolution tectonique de l'anorthosite de Bouchette, province de Grenville, $6,000.00.

Trzcienski, W.E. (Geology)
Evaluation of the economic potential and the geologic setting of chromite and platinum group metals in the Quebec Ultramafic Belt, $13,000.00.

Université du Québec à Chicoutimi

Sawyer, E.W. (Earth Sciences)
Vein formation in quartz-free rocks, $4,500.00.

Université du Québec à Montréal

de Vernal, A. (Géochimie)
Micropaléontologie et géochimie isotopique des sédiments récents de milieux de transition (golfe du Saint-Laurent, baie d'Hudson), $5,400.00.

Gariépy, C. (Sciences de la Terre)
Géochimie des isotopes stables dans les filons post-ordoviciens de Grenville et des basses-terres (Québec et Ontario), $2,000.00.

Mareschal, J.-C. (Earth Sciences)
Determination of the crustal structure of the northern Labrador Trough by gravity measurements, $7,000.00.

NEW BRUNSWICK

University of New Brunswick

Burke, K.B.S. (Geology)
Investigation of neotectonic features in southwestern New Brunswick, $5,750.00.

Derenyi, E.E. (Surveying Engineering)
Utility of remote sensing imagery for mapping, $4,000.00.

Kleusberg, A. (Surveying Engineering)
GPS for airbone gravimetry, $5,750.00.

Langley, R.B. (Surveying Engineering)
Performance and analysis of VLBI observations in Canada for the NASA Crustal Dynamics Project, $4,500.00.

NOVA SCOTIA

Acadia University

Van Wagoner, N.A. (Geology)
The volcanism and geochemistry of parts of the Endeavor and Explorer Ridges: Juan de Fuca Ridge System, $7,000.00.

Dalhousie University

Boyd, R. (Geology)
Marine sedimentology of the Scotian Shelf, $5,500.00.

Huntley, D.A. (Oceanography)
Waves, currents and turbulence in shelf boundary layers, $9,000.00.

Louden, K.E. (Oceanography)
Seismic refraction observations in the Labrador Sea, $12,500.00.

Louden, K.E. (Oceanography)
Arctic heat flow, $7,500.00.

NEWFOUNDLAND

Memorial University

Aksu, A.E. (Earth Sciences)
Late Quaternary biostratigraphy and sedimentology of the West Coast of Newfoundland (Bonne Bay, Bay of Islands and St. Georges Bay), $9,000.00.

Hiscott, R.N. (Earth Sciences)
Identification of source terranes for Lower Paleozoic sandstones of West Newfoundland, $6,000.00.

Hodych, J.P. (Earth Sciences)
Paleomagnetism of the Cambrian volcanics of the Avalon Peninsula of Newfoundland, $4,000.00.

Macpherson, J. (Geography)
Late glacial and Holocene marine and terrestrial palynostratigraphy, Newfoundland, $5,500.00.

Murthy, G.S. (Earth Sciences)
Paleomagnetic investigation of Paleozoic (and Precambrian) rock formations from the Island of Newfoundland and interpretation of results in terms of tectonics, $5,000.00.

Rogerson, R.J. (Geography)
Glacial geology of the Nachvak Fiord area, Northern Labrador, $2,000.00.

Westrop, S.R. (Earth Sciences)
Trilobite biostratigraphy of the Sullivan and Lyell formations (Upper Cambrian), Southern Canadian Rocky Mountains, Alberta, $5,000.00.

Williams, H. (Geology)
Early Paleozoic tectonic-stratigraphic terranes of the Newfoundland Dunnage Zone, $9,000.00.

Wright, J.A. (Earth Sciences)
Seismic measurements across terrane boundaries in Newfoundland, $7,000.00.

Department of Energy, Mines and Resources Contracts Awarded to Canadian Universities 1987-88/ Contracts accordés aux universités canadiennes par le ministère de l'Énergie, des Mines et des Ressources, 1987-88

BRITISH COLUMBIA

University of British Columbia

Barnes, M. (Geological Sciences)
Organic diagenesis in modern, older and ancient environments, $19,994.00.

Barnes, W.C. (Geological Sciences)
Sedimentological studies in the Queen Charlotte Islands, $14,303.00.

Bustin, M. (Geological Sciences)
Document lateral and stratigraphic variation of organic maturity in the Queen Charlotte Islands (Part of the program of the Federal Panel on Energy R&D - PERD), $14,880.00.

Ellis, R.M. (Geophysics and Astronomy)
Study of crustal structure in the Peace River Arch area - phase III, $21,000.00.

Ellis, R.M. (Geophysics and Astronomy)
Seismic data collection at selected sites on the west coast of B.C., $10,500.00.

Finn, W.D.L. (Civil Engineering)
MOLIKPAQ geotechnical study, $61,380.00.

Greenwood, H.J. (Geological Sciences)
Metamorphism in the northwestern portion of the Shuswap complex and surrounding rocks, Clearwater Lake area, British Columbia, $10,054.00.

MacKay, R.J. (Geography)
Study of the development of permafrost and ground ice - western Arctic Coast region - phase III, $54,966.00.

Ross, J.V. (Geological Sciences)
Structural studies in the Queen Charlotte Islands, $15,371.00.

ALBERTA

University of Alberta

Jones, F.W. (Physics)
Investigation of the terrestrial heat flow of the Sverdrup Basin, Canadian Arctic Islands and its relation to hydrocarbon maturation and migration, $29,696.00.

Lerbekmo, J.F. (Geology)
Magnetostratigraphic correlations in Upper Cretaceous strata between the plains and foothills of southern Alberta, $3,018.00.

Majorowicz, J.A. (Physics)
Study of the sub-permafrost deep terrestrial heat flux in the areas of natural occurrence of gas hydrates in the Canadian North, $30,000.00.

Peterson, A.E. (Civil Engineering)
Nahanni rock slide - digital model, $1,500.00.

Rutter, N.W. (Geology)
Determination of amino acid ratios of fossil wood from the Timmins area of northern Ontario, $2,600.00.

Sego, D.C. (Civil Engineering)
Study of sample preparation of sand containing a gas hydrate - phase IV, $27,338.00.

University of Calgary

Butler, R. (Engineering)
Feasibility study of the soluble-vapour, gravity assisted recovery technique for heavy crudes and bitumen, $200,000.00.

Cook, F.A. (Geology and Geophysics)
Acquisition, processing and interpretation of marine or onshore deep seismic reflection data from the southern Beaufort Sea margin, $24,559.00.

Lawton, D.C. (Geology and Geophysics)
Technological and methodological development to improve seismic acquisition and processing of high resolution shallow digital seismic reflection data, $24,001.00.

Schwarz, K.P. (Geology and Geophysics)
The GEOID in northern British Columbia, $11,993.00.

Simony, P. (Geology and Geophysics)
Stratigraphy and structure of Windermere Supergroup adjacent to southern Rocky Mountain Trench, British Columbia, $14,978.00.

Spratt, D. (Geology and Geophysics)
Study and report on structural style related to thickness changes, Mesozoic lithofacies, foothills and front ranges, southern Alberta, $15,000.00.

SASKATCHEWAN

University of Regina

Potter, J. (Geology)
Study of the original petrology of Paleozoic and Mesozoic source rocks in Saskatchewan - phase I. (Part of the program of the Federal Panel on Energy R&D - PERD), $12,000.00.

Watters, B. (Geology)
Investigation of the mafic-ultramafic bodies in the Bassett Lake - Dead Lake area of northern Saskatchewan, $17,068.00.

University of Saskatchewan

Caldwell, W.G.E. (Geological Sciences)
Silurian biostratigraphy and rhynconellid brachiopod faunas of the Beaverfoot and Nonda formations, British Columbia, $10,860.00.

Hajnal, Z.H. (Geological Sciences)
Interpretation of crustal structure in the Peace River Arch area - phase II, $7,000.00.

Kyser, T.K. (Geological Sciences)
Isotopic analyses of rock and mineral samples from Careen Lake, $6,000.00.

Langford, F.F. (Geological Sciences)
Salt anomaly prediction - phase I - improved understanding and predictability of salt anomalies in potash mines, $30,000.00.

MANITOBA

University of Manitoba

Halden, N.M. (Earth Sciences)
Characterization of the geochemical variability of the Falcon Lake Igneous Complex, southeastern Manitoba, $9,000.00.

Moon, W. (Earth Sciences)
Study of the mineralization in Lynn Lake, northern Manitoba - phase II, $11,000.00.

ONTARIO

Brock University

Arkani-Hamed, J. (Geophysics and Astronomy)
Geophysical interpretation of marine magnetic anomalies of Labrador Sea and Orphan Basin, $24,100.00.

Carleton University

Bell, K. (Geology)
Continued development and application of methods for using the Sm/Nd isotopic system to determine the age of gold mineralization in the Canadian Shield, $62,405.00.

Blenkinsop, J. (Geology)
Lead isotope analyses of galena or comparable Pb-rich samples and of pyrite, comparable low-Pb sulphides or seafloor sedimentary material, $9,651.00.

Donaldson, J.A. (Geology)
Diagenesis of middle Proterozoic basins, Churchill and Bear Provinces, $10,000.00.

Michel, F.A. (Earth Sciences)
Isotope and salinity analysis and interpretation of subsea permafrost samples, $10,501.00.

Smith, M.W. (Earth Sciences)
A detailed study of the physical and thermal properties of Norman Wells-Zama Pipeline core specimens, $14,041.00.

Watkinson, D.H.,
Dahl, R. (Earth Sciences)
Compilation, microprobe analysis and scientific writing for Geological Survey of Canada paper "Bay of Islands Ophiolite Complex: Mantle Processes and Metallogeny", $7,500.00.

University of Ottawa

Fowler, A.D. (Geology)
Continuation of the study of the mineral resource potential of the Dyke and Howse Lakes, Labrador, $18,300.00.

Queen's University

Dixon, J.M. (Geological Sciences)
Study of stratigraphy and structure along the eastern boundary of the main ranges in the southern Kananaskis map area, British Columbia, $6,008.00.

Dyke, L. (Geological Sciences)
Mechanics of bedrock frost heaving in permafrost, $26,738.00.

Young, R.P. (Geological Sciences)
Seismic characterization of discontinuities and anomalous rock quality within mine surface crown pillars using attenuation and velocity imaging techniques, $289,768.00.

University of Toronto

Kieser, W.E. (Isotrace Laboratory)
Radiocarbon dating of shell and wood samples by the technique of accelerator mass spectrometry, $9,680.00.

Kieser, W.E. (Isotrace Laboratory)
Radiocarbon dating of shell and organic matter samples by the technique of accelerator mass spectrometry, $6,960.00.

Kieser, W.E. (Isotrace Laboratory)
Isotopic analyses of organic samples, $5,000.00.

Kaiser, W.E. (Physics)
Radiocarbon dating of planktonic Foraminifera sample, $1,080.00.

Naldrett, A.J. (Geology)
Study of the behaviour of noble metals in the Lac des Isles complex, northwestern Ontario, $19,917.00.

University of Waterloo

Konrad, J.M. (Earth Sciences)
Ice formations in saline soils, $65,098.00.

Patton, M.E. (Geological Sciences)
Hydrogen isotope analysis (sd), $2,537.00.

University of Western Ontario

Lo, K.Y. (Engineering Science)
Reviewer evaluation of molipaq geotechnical study, $46,737.00.

McIntyre, N.S. (Surface Science)
Ion probe microanalysis of gold in common sulphide minerals and implications for enhanced recovery from refractory gold ores, $154,582.00.

QUÉBEC

École Polytechnique

Ladanyi, B. (Civil Engineering)
Determination of creep properties of frozen soils by means of the borehole dilatometer relaxation text, $119,955.00.

Laval University

Chagnon, J.-Y. (Geophysics)
Operation of the seismography station at Quebec City, Quebec from April 1, 1988 to March 31, 1989, $2,900.00.

McGill University

Francis, D.M. (Geological Sciences)
X-ray fluorescent analysis of major and trace elements, $3,990.00.

Mountjoy, E.W. (Geological Sciences)
Regional strain analysis in the Mountain Park, Miette and Cadomin areas, eastern Rocky Mountains, Alberta, $25,006.00.

University of Montréal

Mamet, B.L. (Geology)
Manuscript on microfacies analysis of upper Carboniferous and Permian carbonate rocks of Ellesmere Island. (Part of the Program of the Federal Panel on Energy R&D - PERD), $15,133.00.

Peloquin, S. (Geology)
Impact of geology on the decline of maple forests in the Eastern Townships of Quebec, $32,328.00.

Richard, P. (Geography)
Pollen analysis of sediment cores from Timmins, Ontario area, $15,000.00.

St-Jean De Brebeuf College

Gouin, Father P.
Historical seismicity of Quebec - phase II, $4,000.00.

Universite du Québec à Montreal

Gauthier, M. (Earth Sciences)
Gold metallogeny in southwest Grenville County, $29,000.00.

Lamoth, M. (Geology)
Geology of the Quaternary and geochemistry of the tills of New Brunswick, $39,369.00.

Universite du Québec à Quebec

Achab, A. (Sciences de la terre)
Assessment of alteration indices and optical reflectance characteristics of core and outcrop samples from northern Yukon and western Northwest Territories, $16,063.00.

Schrijver, K. (Georessources INRS)
Metallogeny of the St. Fabien region, $38,000.00.

NEW BRUNSWICK

University of New Brunswick

Noble, J.P.A. (Geology)
Study of the sedimentology and diagenesis of the Albert Formation, eastern New Brunswick, $33,000.00.

Rawlence, D. (Biology)
Diatom analysis of lake sediment core from Cape Breton Island, New Brunswick, $3,500.00.

Vanicek, P. (Surveying Engineering)
Development of a map of vertical crustal movements in Canada, $66,504.00

Williams, P.,
Ruixiang, G. (Geology)
Microstructural study of late Paleozoic faults in northern Nova Scotia, $30,000.00.

NOVA SCOTIA

Acadia University

Barr, S.M. (Geology)
The Fourchu Group and associated granitoid rocks of southeastern Cape Breton Island, Nova Scotia, $49,803.00.

Barr, S.M. (Geology)
Geological field mapping, eastern Caledonian Highlands, New Brunswick, $12,940.00

Van Wagoner, N.A. (Geology)
Volcanic stratigraphy, structure, geochemistry and mineralization of the lower Eastport Formation of New Brunswick, $21,142.00.

Dalhousie University

Boyd, R. (Geology)
Rates of subsidence and restored sedimentation Celtic, Lusitanian, Jeanne D'Arc and Labrador Basins, $2,640.00.

Culshaw, N.G. (Geology)
Georgian Bay geological synthesis, Phase I, $58,280.00.

Gibling, M. (Geology)
High resolution stratigraphy, spectral analysis and burial history of Lower Cretaceous drill sites, $8,819.00.

Grant, J. (Oceanography)
Studies of animal-seabed relationships in order to evaluate their effects on sediment thresholds for erosion and rates of seabed erosion in a variety of seabed sites, $30,938.00.

Mayer, L. (Oceanography)
Analytical service for a research sediment velocimeter and related measurements and interpretation, $17,463.00.

Ryall, P. (Geology)
Technical support for operation of the Bedford-Dalhousie electric diamond drill on board the CGV John P. Tully, $27,995.00.

Ryall, P. (Geology)
Geodynamics of sedimentary basins and rifted margins - Grand Banks region, $8,000.00.

Scott, D. (Geology)
Stable isotope analysis of Foraminifera from Core 85027-57 in Hudson Strait, $1,782.00.

Scott, D. (Geology)
Stratigraphic study of eastern Lake Erie, $15,000.00.

Technical University of Nova Scotia

Cole, C. (Minerals Engineering)
Preparation and analysis of rock samples from Yava lead deposit, Nova Scotia, $1,750.00.

NEWFOUNDLAND

Memorial University

Botsford, J. (Earth Sciences)
Geochemistry and petrology of Lower Paleozoic Platform - equivalent shales, western Newfoundland, $40,409.00.

Calon, T.,
Malpas, J. (Earth Sciences)
Determination of the geological structure and deformation history of selected areas containing chromite deposits in the Bay of Islands ophiolite complex, Newfoundland - Phase III, $23,000.00.

Fryer, B.J. (Earth Resource Research)
High precision and rare earth element analyses of volcanic rocks from the Roberts Arm Group, central Newfoundland, $17,437.00.

Fryer, B.J. (Earth Sciences)
Geochemical analyses, $4,500.00.

Gale, J.,
Welhan, J. (Geology)
Continuation of a study of the groundwater in the area of Daniel's Harbour Mine, Newfoundland, $29,928.00.

Guigne, J.Y. (C-Core)
Correlation of acoustic and geotechnical properties of uniform saturated silica sands using the acoustic subseabed interrogator technology, $27,000.00.

Lever, J. (Cold Ocean Resources Engineering)
Dynamics interpretation of iceberg scour, $22,970.00.

MacPherson, J. (Geography)
Palynological study for Avalon Sea level change, $1,653.00.

Morin, P. (Engineering)
Stress history and strength of sediments from the Narwal sites, $5,991.00.

Rivers, T.,
Calon, T. (Earth Sciences)
Continuation of the structural studies in the Grenville Front Tectonic zone near Wabush, Labrador, $13,000.00.

Williams, H. (Earth Sciences)
Study on the geology of the Appalachian Orogen in Canada and the Phanerozoic of East Greenland, $84,750.00.

Wilton, D. (Earth Sciences)
Study of metallogeny of central Labrador mineral belt - phase II. (Part of the Bioenergy Development Program), $76,065.00.

Woodworth-Lynas, C. (C-Core)
Sediment deformation by ice scour, $33,031.00.

**Polar Continental Shelf Project Field Support Non-Governmental Activities 1987-88/
Plateau continental polarie en faveur d'àctivités non governementales pour 1987-88**

BRITISH COLUMBIA

University of British Columbia

Bowen, C.R.
Geomorphology, Mackenzie Delta, District of Mackenzie.

Jung, A.
Geology-stratigraphy, Ellesmere Island, District of Franklin.

ALBERTA

University of Alberta

Chatterton, B.D.E.
Geology-paleontology, Arctic Islands.

England, J.
Geology-Quaternary glaciation, northern Ellesmere Island, District of Franklin.

Kerr, D.E.
Geology-stratigraphy, Tuk, Paulatuk, Coppermine, Bathurst Inlet.

Smith, D.G.W.
Geology-meteorites, Devon Ice Cap, Barnes Ice Cap.

Tyrrell Museum

Johnston, P.A.
Geology-paleontology, Melville Island, Prince Patrick Island, District of Franklin.

SASKATCHEWAN

University of Saskatchewan

Basinger, J.F.
Geology-paleontology, Axel Heiberg Island, District of Franklin.

MANITOBA

University of Manitoba

Lehn, W.H.
Geophysics-refraction, Resolute, Cornwallis Island, District of Franklin.

University of Winnipeg

Krawetz, M.T.
Geology-sediments, east-central Ellesmere Island, District of Franklin.

ONTARIO

Carleton University

Michel, F.A.
Geology-ground ice, Mackenzie Delta, Herschel Island.

University of Guelph

Martini, I.P.
Geology-geomorphology, Foxe Basin islands, District of Franklin.

Laurentian University

Dewing, K.
Geology-stratigraphy, Southampton Island, District of Keewatin.

McMaster University

Woo, M.
Hydrology, Resolute, Cornwallis Island, District of Franklin.

University of Ottawa

Bennett, L.P.
Geology-permafrost, Rae Point.

Dixon, O.A.
Geology-sedimentology, stratigraphy, southwest Devon Island, District of Franklin.

French, H.M.
Geology geomorphology, permafrost, Banks Island and Yukon Territory.

University of Toronto

Lewkowicz, A.G.
Geology-ground ice, Fosheim Peninsula.

Ritchie, J.C.
Geology-lake sediments, Tuktoyaktuk, District of Mackenzie.

Trent University

Adams, W.P.
Glaciology, White Glacier, Axel Heiberg Island, District of Franklin.

Bednarski, J.
Geology-Quaternary paleogeography, Nansen Sound.

University of Western Ontario

King, R.H.
Geomorphology, Truelove Lowlands.

Lenz, A.C.
Geology-paleontology, Cornwallis Island, District of Franklin.

Mallano, M.
Geology-reefs, Ellesmere Island, District of Franklin.

Pearce, C.M.
Geomorphology, Mackenzie Delta, District of Mackenzie.

Rainbird, R.R.
Geology-stratigraphy, sedimentology, Victoria Island.

NOVA SCOTIA

Dalhousie University

Louden, K.E.
Geophysics-geothermal, Arctic Ocean (Ice Island).

Muecke, G.K.
Geology-volcanics, Ellesmere and Axel Heiberg islands, District of Franklin.

NEWFOUNDLAND

Memorial University of Newfoundland

Burden, E.
Geology-biostratigraphy, Bylot Island, northern Baffin Island.

Macko, S.A. and Aksu, A.E.
Chemical oceanography, sediments, Arctic Ocean (Ice Island).

Pollard, W.H.
Geology-geomorphology, Beaufort Sea coast.

U.S.A.

University of Alaska

Jefferies, M.
Glaciology, northwestern Ellesmere Island, Resolute, Mould Bay, Ice Island.

Carnegie Museum

Dawson, M.
Geology-stratigraphy, Ellesmere, Axel Heiberg and Devon islands, District of Franklin.

University of Cincinnati

Vestal, J.R.
Geology-paleontology, Eureka.

John Hopkins University

De Paor, D.
Geology-structural, Ellesmere Island, District of Franklin.

University of Iowa

Swett, K.
Geology-sedimentology, Aston Bay, Somerset Island.

University of Massachusetts

Bradley, R.S. and Retelle, M.
Geology-sediments, northern Ellesmere Island, District of Franklin.

University of Miami

Plane, J. and Zika, R.
Chemical oceanography, Arctic Ocean (Ice Island).

Purdue University

Zinsmeister, W.J.
Geology-paleontology, Strathcona Fiord, Fosheim Peninsula.

University of Washington

Waddington, E.D.
Glaciology, Ellesmere Island, District of Franklin.

Washburn, A.L.
Geology-periglacial processes, Cornwallis Island, District of Franklin.

GERMANY

U. Justus Liebig

King, L.
Glaciology, Hare Fiord, Expedition Fiord, Oobloyah Bay.

JAPAN

Hokkaido University

Fujino, K.
Ice coring, paleoclimatology, Tuktoyaktuk, District of Mackenzie.

Ontario Geological Survey, Geoscience Research Grants, 1987-88/
Commission géologique de l'Ontario subventions de recherche en sciences de la terre pour 1987-88

Brock University

Haynes, S.J.
Gypsum deposits of southern Ontario, $16,480.00.

Carleton University

Taylor, R.R., Watkinson, D.H.
Geological, fluid inclusion, and isotopic studies of gold-bearing vein systems in the Cameron Lake and Monte Cristo Shear Zones, northwestern Ontario, $20,200.00.

University of Guelph

Campbell, J.L.
Software development for Micro-PIXE Analyses of mineralogical specimens, $21,720.00.

Lakehead University

Fralick, P.U., Burton, J.P.
Placer formation in braided river systems, $5,197.00.

Kissin, S.A.
The genesis of silver vein deposits in the Thunder Bay area, $5,500.00.

Laurentian University

Whitehead, R.E., Beswick, T.
Remote sensing and geobotany as an aid to mineral exploration in northern terrains, $55,000.00.

McMaster University

Crockett, J.H., Dickin, A.P.
A lead isotope study of gold mineralization in the Dome Mine quartz-fuchsite vein environment, $18,320.00.

University of Ottawa

Hattori, K.
Study of gold mineralization and alteration at the Lake Shore Mine, Kirkland Lake, $25,720.00.

Queen's University

Mason, R.
Geological setting of gold deposits in the Timmins Mining Camp, $31,880.00.

Nichol, I., Shaw, J.
Quaternary geology and geochemical exploration in the Matheson area, $23,900.00.

Smith, L.
Karst episodes and permeability development, Silurian reef reservoirs, southwestern Ontario, $13,189.00.

University of Toronto

Bailey, R.C.
Improved computer interpretation of gravity and magnetic dating, $15,100.00.

Gorton, M.P.
Physical and chemical processes of Archean subaqueous pyroclastic rocks, $14,224.00.

Schwerdtner, W.M.
Deformation of the Sudbury structure and its footwall, $21,360.00.

Spooner, E.T.C.
Controls on unusual gneissic tonalite/trondhjemite hosted gold mineralization, Renabie Mine, Missanabie, $20,248.00.

University of Waterloo

Frape, S.K., McNutt, R.H., Fritz, P., Macqueen, R.W., Coniglio, M.
Geochemical studies of formation waters, Paleozoic strata, southwestern Ontario, $18,810.00.

Karrow, P.F., Greenhouse, J.P., Dusseault, M.B.
Subsurface Quaternary stratigraphy using borehole geophysics, $31,307.00.

Warner, B.G., Nobec, D.C.
Application of surface radar sounding techniques in peatland inventories, southern Ontario, $14,250.00.

University of Western Ontario

Edgar, A.D.
The geochemical origin and economic potential of platinum group element (PGE) bearing rocks of the Lac des Iles Intrusion, $11,165.00.

Fleet, M.
Metamorphic petrology of the White River gold prospect, Hemlo area, $25,010.00.

Fyfe, W.S.
Metal accumulation in microorganisms with emphasis on uranium, gold, silver, copper, zinc and iron, $33,720.00.

Hicock, S.
Light minerals and specialty sand in southern Ontario, $19,380.00.

British Columbia Geological Survey, Geoscience Research Grants, 1987-88/
Commission géologique de la Colombie-Britannique subventions de recherche en sciences de la terre pour 1987-88

BRITISH COLUMBIA

University of British Columbia

Bradford, J.
Genesis of the Silver Creek carbonate - hosted deposit Midway area, $2,000.00.

Broatch, J.
Palynological zonation and correlation of the Peace River coalfield (Minnes Formation, Jurassic-Cretaceous), $6,500.00.

Fletcher, W.K.
Geochemical exploration methods for gold in stream sediment, $6,000.00.

Godwin, C.
Pb isotope analyses to guide exploration, $5,000.00.

Leitch, C.
Bralorne - Pioneer gold vein system, $2,000.00.

Mader, U.
Aley carbonatite, northern Rocky Mountains, $5,000.00

Orchard, M.J.
Conodont studies, Kechiko Trough, $5,000.00.

Payne, D.
Warner Pass petrology, $3,000.00.

Reddy, D.
Geology of the Indian River/Britannia volcanic belt, $10,500.00.

University of Victoria

Van der Flier-Keller, E.
Nanaimo-Comox coal deposits, $3,000.00.

ALBERTA

University of Alberta

Nesbitt, B.
Sulphur isotopes, $1,000.00.

Persaud, E.
Slocan Group mapping and geochemistry, $5,000.00.

Plint, H.
Horseranch Range, north-central British Columbia, $3,500.00.

ONTARIO

Carleton University

Johnson, B.
Sicamous area, regional mapping, $4,000.00

Melling, D.
Q.R. gold deposit geological setting, $5,000.00.

Rublee, J.
Tulameen Ultramafic Complex, south-central British Columbia, $6,000.00.

Queen's University

Ijewliw, O.
Golden ultramafic diatremes, southeastern British Columbia, $5,000.00.

University of Western Ontario

MacDonald, D.
Silbak-Premier ore minerals, $2,000.00.

QUEBEC

McGill University

Bellefontaine, K.
Ingenika Range, Swannell River - Johansen Lake area, north-central British Columbia, $3,500.00.

U.S.A.

Colorado School of Mines

Garrecch, N.
Lead isotopes, Nelson area, southeastern British Columbia, $5,000.00.

Natural Sciences and Engineering Research Council Canada Strategic Grants 1987-88/
Subvention thématiques données par le Counseil de recherches en sciences naturelles et en génie du Canada 1987-88

BRITISH COLUMBIA

University of British Columbia

Isaacson, M. (Civil Engineering)
Combined wave-current effects on structures, $114,000.00.

Pond, G.S. (Oceanography), Farmer, D.M. (Fisheries and Oceans), Dunbar, D. (Seaconsult Marine Research Ltd.)
Numerical modeling and measurements of the circulation of British Columbia fiords, $83,570.00.

ALBERTA

University of Alberta

Toth, J. (Geology)
Development of a hydrogeological approach to petroleum exploration, $75,200.00.

SASKATCHEWAN

University of Saskatchewan

De Jong, J., Acton, D.F. (Soil Science)
Soil erosion in Saskatchewan: Rates, impacts and amelioration, $65,000.00.

ONTARIO

University of Lakehead

Puttagunta, V.R. (Chemical Engineering)
Development of a correlation to predict viscosity of Canadian bitumens/heavy oils at in situ process conditions, $34,600.00.

University of McMaster

Crocket, J.H. (Geology)
Potential of uraniferous conglomerates at Elliot Lake, Ontario, for by-product platinum group minerals recovery, $15,000.00.

Dickin, A.P., Crocket, J.H., McNutt, R.H. (Geology)
Re-Os dating of platinum group elements and gold deposits, $32,750.00.

Kershaw, K.A., Rouse, W.R., Woo, M.K. (Biology)
Modelling the impacts of impoundment on the coastal marshes of western James Bay, $55,000.00.

Walker, R.G. (Geology)
Origin of reservoir sandstones and conglomerates, Alberta $53,050.00.

University of Queen's

Kamphuis, J.W. (Civil Engineering)
Hydraulic model research on the physics of sediment transport by waves, $54,560.00.

Young, R.P., Hutchins, D.A. (Geological Sciences)
Rock burst investigations using concurrent tomographic imaging and acoustin emission techniques, $60,000.00.

University of Toronto

Edwards, R.N. (Physics)
The development of sea floor electromagnetic mapping methods, $31,500.00.

Greenwood, B. (Geology/Geography), Bower, A.J. (Dalhousie, Geology)
Nearshore sediment transport, $94,620.00.

Mackay, D. (Environmental Studies)
A study of hydrocarbon partitioning in the marine environment, $39,500.00.

Scott, S.D. (Geology), Chase, R.L. (British Columbia, Geological Sciences)
Tectonics, sulphides and robots in the Canadian Pacific, $130,000.00.

Spooner, E.T.C. (Geology)
Archean gold-quartz vein ore deposits; testing a complete genetic solution and exploration lithogeochemistry, $75,000.00.

University of Waterloo

Dusseault, M.B., Rothenburg, L. (Earth Sciences)
Salt rock geomechanics, $80,000.00.

Fritz, P., Frape, S.K. (Earth Sciences), Macko, S.A., Welhan, J.A. (Memorial, Earth Sciences).
Isotope geochemistry of hydrocarbons in crystalline rocks, $41,250.00.

Warner, B.G., Frits, P. (Earth Sciences)
Paleobiological and environmental isotope investigation of peat deposits in Ontario, $40,000.00.

NEW BRUNSWICK

University of New Brunswick

Landva, A.O., Valsangkar, A.J., Law, K.T. (Civil Engineering)
Progressive failure in soft soils, $237,600.00.

NOVA SCOTIA

University of Dalhousie

Beaumont, C., Reynolds, P.H., Zentilli, M. (Oceanography, Geology)
Geodynamics and thermal evolution of rifted margins and their flanks, $74,220.00.

Louden, K.E. (Oceanography)
Arctic heat flow, $74,500.00.

Scott, D.B., Medioli, F.S., Mayer, L.A. (Centre Marine Geology)
Quaternary studies of North Atlantic ODP sites, $88,000.00.

NEWFOUNDLAND

Memorial University of Newfoundland

Guigne, J.Y., Clark, J.I., Nadreau, J.P. (C-Core)
An integrated investigation into the processes ice keel/soil interaction, $100,000.00.

Jordaan, I.J., Muggeridge, D.B., Nadreau, J.P., Frederking, R.M.W., Jones, S.J., Swamidas, A.S.J. (Ocean Engineering)
Ice-induced vibrations in structures, $78,120.00.

Name/Nom Department/Department University/Université	1987-88
Archibald, D.A. Geological Sciences Queen's	Chlorinecontrol du paleoclimate du double
Arnold, M.G. Geography Trent	Hydrologic and biologic roles of iron incluating
Asfordargos, T.G. Geology Ottawa	Mathematical models for modelling and correlation
Atkinson, B.K. Earth & Atmos. Sc. York	Laboratory studies in geophysical fluid dynamics
Attard, M. Geographie Laval	Quaternaire et periglacial littoral a la baie
Anderson, G.M. Geology Toronto	Metamorphic and ore-forming solutions
Arkani-Hamed, J. Geological Sciences McGill	Thermal evolution of planets and satellite Geomatic anomalies
Armstrong, R.L. Geological Sciences U.B.C.	Los silicon geochronometre radiogenic isotopeno
Aspler, L.B. Geological Sciences Laurentian	Paleontological investigations of Paleozoic and Archean volcanic, sedimentary and plutonic
Bardgett, M. Geology Alberta	Isotope geology of selected crustal rocks from Scotland, northern Ireland and parts of the Canadian Shield
Bell, K. Geophysics Carleton	La deglaciation fini-pleistocene en Amerique
Bellier, G.L. Physics Toronto	Inverse and theoretical methods in geophysics
Beller, M.G. Geography Simon Fraser	Measurement and modelling of snow and snow transfer in mountain environments
Beneditti, M.M. Earth Sciences Waterloo	Paleomagnetic correlation and dating of sedimentary deposits in the Canadian Arctic, East Africa and Arctic, East Africa and western China
Bergeron, M. Earth Sciences Laval	Aspects of biogeochemistry of groundwaters
Bergeron, L.G. Earth Sciences Montreal	Lower Paleozoic conodonts biozonation, thermocolouration, thermal maturation, and isotope studies
Bergeron, J.G. Applied Sciences Quebec-Chicoutimi	Distribution of platinum group elements in hydrothermal ore deposits
Berry, L.G. Geology Acadia	Petrology, metamorphism, and mineral isotopic identification of tungsten ores, Hong Kong Textile, New Brunswick, and Thailand
Bertrand, de Saint-Seine Geological Sciences Saskatchewan	Fossil plants of western and northern Canada
Bertram, R. Geology & Geophys. Calgary	Emitted crystallographic dimensions
Bezzubenko, L. Geology Ottawa	Geodynamics of sedimentary basins and mountain
Bezys, R.K. Geology Western Ontario	Geothermal problems, pure and applied
Bodenbender, B. Geography Trent	Quaternary paleogeography Yukon Islands N.W.T.
Bell, R. Geology Carleton	Isotope geochemistry of carbonatites

Name/Nom Department/Department University/Université	1987-88
Bolton, P.A. Geography York	Experimental modelling of lake evaporation
Bonavista, C. Earth Sciences Laval	La compartiment de l'ion ocre dans les precipitations chimiques hydrothermales des Quaternaires du Pleistocene
Bonnichsen, B. Geological Carleton	Trace element and radiogenic isotope geochemistry of basaltic rocks
Boothroyd, J.C. Geology Maine	Wave-induced sand bars in coastal systems and on the continental shelf
Bouchard, M. Geographie et Centre Montreal	Telesimulation des precipitations journalieres et la valeur de la pluie
Boucot, A.J. Geology Oregon	Tidal and paratidal structural analogs with reference to the Uralia
Boutilier, R. Geological Sciences Queen's	Les deformations des alterations et de vacuoles et de ses vacuoles
Boutron, C.F. Geologie Grenoble	Evolution climatique des precipitations carbonates alpine enregistrees au cours de l'Holocene
Boyle, W.J. Geological Sciences British Columbia	Slope movement in southwest British Columbia
Bowen, A.J. Oceanography Dalhousie	Dynamics of ocean currents and sediments
Boyd, R. Geology Wollongong	Coastal and continental shelf sedimentation
Brandt, O. Geological Sciences Toronto	Paleomagnetism of marine invertebrates and the geochemical evolution of the hydrosphere
Brassard, J.G. Geology Laval	Sedimentology and postglacial geology of Labrador Sea Baffin Island, Canada
Brookfield, M.E. Earth Sciences Laurentian	Tectonics and basin development
Brownlow, J.W. Geology Queen's	Tectonic and chemical studies of early crustal processes
Brunton, F.R. Earth Sciences New Brunswick	Lithologic information in areas of conductive and resistive rock
Bryant, B. Earth Sciences Simon Fraser	Etude d'failles listes des elements stratiformes de certains conglomerats polygeniques Archeens du Nord-ouest du Quebec-Ontario
Bryant, I.D. College & Lithonics Calgary	Electromagnetic logging in multifrequency IP
Bryant, B.H. Geology Carleton	Tectonic and structural analysis of metamorphic core complexes
Bryant, I.D. Geological Sciences Western Ontario	Equation of state for solids
Bryan, R.G. Geography Toronto	Experimental study of rill erosion and sediment transport processes and application to soil erosion control in semi-arid regions
Burden, E.T. Earth Sciences Memorial	Paleozoic and Jurassic palynology of the north Atlantic borderlands
Burden, D.G. Geological Sciences Western Ontario	Sedimentology and petrology of coal measures and source rocks in Western and Arctic Canada
Burke, J.D. Geography Trent	Groundwater-streamflow interactions in a forested catchment

Name/Title Department/University	
Caldwell, W.G.E. Geological Sciences Saskatchewan $6	Stratigraphic studies in the cretaceous system of western Canada.
Calvert, S.E. Oceanography British Columbia $5	Geochemistry of marine sediments
Cameron, E.M. Geology Ottawa $6	Isotopic stratigraphy of precambrian mineralized basins
Campbell, F.H.A. Geography Alberta $2	Proglacial varve sediment delivery and the evolution of the Bow Lake Outlwash
Canada, Geological Survey Earth & Atmos. Sc. York $1	Mid-ocean sea-floor spreading and paleomagnetism/rock magnetism
Canadian Geological Sciences Council Geological Sciences Queen's $6	Metamorphic studies in Canada
Carroll, D.M. Geology McGill $4	Patterns and processes of weathering as evidence by Paleozoic and Paleozoic sedimentary
Carson, M.A. Geography Ottawa $4	Movement of gravel in braided rivers
Cawthorn, R.G. Geology Witwatersrand $6	Interaction and removal of heat in layered mafic bodies by circulation of convecting magma and its significance in crustal evolution
Cerny, P. Earth Sciences Manitoba $6	Mineralogy, petrology and genesis of granitic pegmatites
Chao, E.T. Geology Carleton $7	Mineralogy of the nepheline syenite, Mont St. Hilaire, Quebec
Chatterton, B.D.E. Geology Alberta $3	Systematics, biostratigraphy, paleoecology and paleobiogeography of Paleozoic trilobites, Conodonts and Ostracodes
Chenji, A.N. Geological Sciences Brandon $7	Study of the textural characteristics of stratification in clastic deposits
Cheriton, O.P. Earth Sciences Waterloo $6	Hydrocarbons in thin amphibolite-rimmed gneissic complexes: age and alteration effects.
Chouteau, M.G. Ecole Polytechnique $7	Développement d'outils d'exploitations pour l'étude des réponses impulsionnelles et pour la détection de fils
Clague, J.J. Earth Sciences Simon Fraser $4	Influence of basement on the tectonic evolution of the Cordilleran belt
Clarke, D.B. Geology Dalhousie $5	Studies of textures and orientation in alkaline rocks.
Cloutier, L.G. Zoology Toronto $1	Post-larval mammalian fossils especially of Canada and Arctic
Coish, R.A. Geological Sciences Lehigh $4	Origin and delineation of metallogenetic provinces of convergent plate margins
Conkin, J.E. Geology Lafayette $1	Paleozoic paleontology, geochronology and paleoecology, of Central Texas
Cowan, D.S. Geology Washington $4	Sedimentology and tectonics of Mesozoic and Cenozoic deposits
Cowan, E.J. Geology Victoria $4	Investigations of fiord patterns in nature
Cowan, W.R. Geology Ottawa $4	Fracture and shear zone fabrics

Name/Title Department/University	
Cowan, W.R. Geophys. & Astron. Western Ontario $6	Reflection/refraction seismology on land and at sea for lithospheric studies
Coplen, J.M. Geography Trent $4	Continental paleoenvironmental and paleoclimatology
Culbertson, W.C. Geology Kansas $6	Paleozoic and proterozoic crustal growth processes in the trans-Hudson Orogen and North Atlantic Craton
Cumming, G. Geological Sciences Saskatchewan $7	Sedimentologic and diagenetic study of carbonates from southeastern Alberta and western Saskatchewan
Cook, F.A. Geology & Geophys. Calgary $6	Seismic reflection profiling of structures in crystalline rocks
Cumming, P. Geology Saskatchewan $3	Isolation and survival strategies of paleozoic brachiopod epibiotic protozoans and their influence on fossil to reef/carbonate associations
Cumpston, J.M. Geology McMaster $4	Applications of geochemistry to mineral deposit genesis
Cunningham, C.G. Geological Sciences Western $3	Physics of the earth's core
Cruden, D.M. Geology Alberta $4	Stability of natural slopes in rock
Culshaw, N. Dalhousie $3	Structure/tectonics of lower continental crust (Grenville Province) and microstructure of deformed metamorphic rocks
Cumming, G.L. Physics Alberta $3	Systematics of Pb isotopic variations in ores and rocks - crustal evolution studies
Cumming, G.L. Geological Sciences Manitoba $3	Sedimentology of eocene shallow marine and eminent volcanic clastics
D'Anglejan, B.F. Earth Sciences McGill $3	Studies in coastal and estuarine sedimentation in subarctic regions
Davies, D. Earth Sciences Memorial $7	Development of transient gas tunnels around electrically heated nuclear waste
Davidson Arnott, R.G.D. Geography Guelph $4	Morphology and movement of sand waves, Long Point, Ontario
Davis, D.W. Geology Toronto $3	Applications of high precision U-Pb dating to the study of Precambrian crustal evolution
Deblonde, G. Earth Sciences Laval $3	Composition originale des argiles: diagenèse et hydrothermalisme
Demarchocky, G. Geology Ottawa $7	Isolation de pistes-formes calcaires sur un terrain donné en fonction de l'environnement, de la composition exacte de la carbonate
Dickin, A.P. Geology McMaster $7	Radiogenic isotope analysis to solve crustal-geological and petrogenetic problems
Dickinson, W.T. Engineering Guelph $4	Mechanics and modelling of soil erosion
Dimroth, E.G. Geology Toronto $6	Physical and chemical properties of granitic melts
Dionne, J.C. Geography Laval $4	Isolation des rives du Saint-Laurent Erosion-sedimentation
Dixon, J.M. Geological Sciences Saskatchewan $6	Centrifuge model and field studies in tectonics

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[illegible]	[illegible]

List of grant awards in the earth sciences for 1987-88/ Liste des subventions attribuées aux sciences de la Terre en 1987-88

Name/Nom Department/Département University/Université	
Fritz, P. Earth Sciences Waterloo 86	Isotope hydrology; isotope geochemistry; paleoenvironments
Fryer, B.J. Earth Sciences Memorial CO	Direct dating and isotopic tracer studies of ore deposits
Fyfe, W.S. Geology Western Ontario 85	Geochemistry, tectonics and biosphere interactions
Fyson, W.K. Geology Ottawa 85	Structural patterns and tectonics of Precambrian metamorphic terrains
Gagnon, P.A. Dept. of Silviculture Laval 86	Amélioration et automatisation de levees en zoomatique
Gales, J.E. Earth Sciences Memorial 87	Factors controlling the rate of movement of fluids through fractured argillaceous and crystalline rocks
Gardiner, J.S. Geography Waterloo 87	Glacier headwall weathering and sediment transport processes
Gariepy, C. Sciences de la terre UQAC-Montreal 87	Isotopic and trace element evaluation of continental crust development in Precambrian and Phanerozoic terrains
Garrett, C.J.R. Oceanography Dalhousie 87	Physical oceanography
Gauthier, M. Sciences de la Terre UQAC-Montreal 86	Metallogénie des gites de métaux usuels et précieux au Québec
Gauthier, M.A. Geographie Ottawa 86	Palynostratigraphie et variations climatiques tardiglaciaires et postglaciaires
Geldart, L.P. Geology & Geophys. Calgary 86	Geophysical and petrologic study of metamorphism and diagenesis
Gibling, M.R. Geology Dalhousie 87	Lacustrine and alluvial stratal facies models and tectonic setting
Gibson, H.L. Earth Sciences Waterloo 86	Volcanological and petrological processes operative in paleozoic rifting
Gilbert, R. Geography Queen's 86	Glaciomarine sedimentology of arctic fiords
Gillespie, T.J. Land Resource Sc. Guelph 87	Estimation of local site temperatures from standard weather station data
Gillham, R.W. Earth Sciences Waterloo 87	Transport in the vadose zone
Gittins, J. Geology Toronto 87	Genesis of carbonatites and alkalic rocks: related phosphate and niobium ore
Godwin, C.I. Geological Sciences British Columbia 86	Analysis and interpretation of lead isotopes in the Canadian Cordillera
Goff, J.R. Geology Laurentian 87	Crystal fractionation and magmatic contamination in the Sudbury igneous complex
Goodchild, M.F. Geography Western Ontario 85	Applications of fractals and related concepts in geographical data processing
Goodwin, A.M. Geology Toronto 87	Development of Archean crust
Gough, D.I. Physics Alberta 85	Magnetovariations, magnetotelluric and paleomagnetic studies

Name/Nom Department/Département University/Université	
Gratton, Y. Oceanographie Quebec-Rimouski 86	On the dynamics of unsteady flows over strong topography
Gray, D.M. Agricult. Eng. Saskatchewan 87	Prairie hydrology: snowmelt runoff and soil water movement
Gray, J. Physics Alberta 85	Stable isotope studies of tree rings, peat and cave deposits to determine past climate in Canada
Gray, J.T. Geography Montreal 85	Application of LANDSAT 5-MSS and TM data to terrain mapping in temperate and Arctic Quebec
Greatbatch, R.J. Physics Memorial 86	Interannual variability in the oceans
Greenough, J.D. Geology Mount Allison 86	Petrogenesis and tectonic significance of mesozoic volcanism in Atlantic Canada
Greenwood, B. Geology/Geography Toronto 87	Coastal hydrodynamics and sedimentation
Greenwood, H.J. Geological Sciences British Columbia 87	Metamorphic phase equilibria
Grundy, H.D. Geology McMaster 85	The characterization and crystallization histories of minerals
Guha, J. Sc. appliquees UQAC-Chicoutimi 87	Modelisation de l'evolution et de la mise en place des fluides mineralisateurs associes aux gites filoniens archeens
Gwyn, J.M.J. Geographie et CARTEL Sherbrooke 87	Application de la teledetection radar aux ressources non-renouvelables
Hajnal, Z. Geological Sciences Saskatchewan 85	1) Seismic investigation of deep seated structures in Saskatchewan 2) Seismic investigation of Precambrian contact zones
Haldar, S.K. Earth Sciences Manitoba 86	Geochemistry of late tectonic granites at the Churchill-Superior margin
Hales, C.J. Geology McMaster 87	Preservation of paleomagnetic remanences under conditions of burial metamorphism
Hall, J.K. Geology Dalhousie 87	Construction, alteration and magnetization of oceanic greenstone and other volcanic sequences
Halls, H.C. Geology Toronto 85	Paleomagnetism of mafic igneous rocks
Hamilton, J.V. Geological Sciences Queen's 87	Tectonothermal histories of precambrian greenstone belts and orogens by $^{40}Ar/^{39}Ar$ geochronology
Hanmer, S. Geology Carleton 87	Nature and significance of lithotectonic domains and of their bounding tectonites, southeastern Grenville province
Harris, S.A. Geography Calgary 86	Alpine environmental studies
Harvey, L.D.D. Geography Toronto 86	Coupled atmosphere-ocean-cryosphere climate modelling
Hattori, K. Geology Ottawa 86	Geochemical and isotopic study of Archean gold mineralization
Heathcote, R.C. Earth Sciences Manitoba 85	Crystal structure: a key to mineral classification and paragenesis
Hegg, A.G. Physics Memorial 86	Coastal and continental shelf oceanography

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Heberts M. Geologie Laval 87	Petrologie comparee des roches ultramafiques et mafiques continentales et oceaniques	Hynes A.J. Geological Sciences McGill 85	Orogenic core-zones - the Labrador trough at 56 degrees N
Heins F.J. Geology Dalhousie 87	Basin analysis: shelf and slope deposits, active and passive margins	Ingram B.G. Oceanography McGill 85	Interfacial processes in coastal and estuarine regions
Helmstaedt H. Geological Sciences Queen's 86	Structures and fabrics in metamorphic rocks, tectonic settings of mineral deposits, Kimberlites and their xenoliths	Irving E. Physics Victoria 86	Paleomagnetism of Cretaceous and Early Tertiary rocks in the Cordillera
Hermuz V. INRS-Georess. Inst natl de la rech sci 84	Mineralisations et matieres organiques (Fm. Pos Cus Agi de l'Archeen et du Phanerozoique	Jacobs J.D. Geography Windsor 84	Mesoscale climates and paleoclimates in Southern Baffin Island
Hesse R. Geological Sciences McGill 87	Case histories of progressive diagenesis in clastic sediments	James N.P. Earth Sciences Queen's 86	Facies anatomy and diagenetic evolution of early paleozoic carbonates
Hetu B. Geographie Quebec-Abitibi 87	La phytostabilisation des chenalis schisteux nord-gaspesiens et ses implications morphosedimentologiques	Jamieson R.A. Geology Dalhousie 87	Metamorphism and tectonics - towards better P-T-t models
Hickin E.J. Geography Simon Fraser 85	Recent geomorphic control of sediment and river activity in the coastal mountains of British Columbia	Jarvis G.T. Earth & Atmos. Sc. York 87	The role of the lithosphere in mantle convection
Higock S.R. Geology Western Ontario 87	Glacial drift in Ontario: Local affinities, genesis, facies sequences	Jensen O.G. Geological Sciences McGill 85	Geophysical analysis/earth mechanics
Hill A.R. Geography York 87	The role of the riparian zone in regulating nutrient transport from land surfaces to streams	Joudy L.M.A. Foresterie/geodesie Laval 86	Systeme de mesure du nord astronomique a grand rendement
Hillaire-Marcel C. GEOTOP Quebec-Montreal 87	Hydrologie, paleohydrologie isotopiques et paleoclimats	Johnson B.D. Oceanography Dalhousie 86	Disaggregation of marine macroaggregates
Hiscott R.N. Earth Sciences Memorial 86	Sedimentation along continental margins	Johnson P.G. Geography Ottawa 85	Sediment transfer in glacierized basins
Hodgson C.J. Geology Queen's 87	Metallogeny of precious metal and lithophile element ore environments	Jones G. Geology Alberta 86	Diagenetic regimes associated with unconformities in carbonate sequences
Hodych J.P. Earth Sciences Memorial 85	Mechanisms of remanence acquisition and retention and the reliability of the paleomagnetic record	Jones F.W. Physics Alberta 86	Electromagnetic induction, heat flow and earth tides and tilts
Hofmann H.J. Geology Montreal 86	Precambrian and Lower Proterozoic paleontology and stratigraphy	Jones H.G. INRS - Eau Inst natl de la rech sci 87	Snowcover and snowmelt chemistry
Hoim P.C. Geology Windsor 86	Strain analysis studies in the Grenville Central metasedimentary belt	Kaczmarska-Uhrmann I. Biology Mount Allison 87	Pilot project to study middle to late Tertiary siliceous microfossils from oil exploratory wells, offshore eastern Canada
Hopkinson J.C. Geology & Geophys. Calgary 87	Geometry of Mesozoic Paleochannel and Paleovalleys of the Western Interior	Kanasewich E.R. Physics Alberta 86	Geophysical investigation of the crust and mantle
Howard K.W.F. Physical Science Toronto 86	Effects of acid precipitation on groundwater hydrochemistry	Karrow P.F. Earth Sciences Waterloo 86	Quaternary history and non-glacial environment.
Howarth P.J. Geography Waterloo 86	Satellite and airborne digital data for studying the physical environment	Kays W.D. Land Resource Sc Guelph P.	Quantitative characterization of mass and heat transfer in freezing soil.
Hrons F. Physics Alberta 87	Theoretical investigation and computer simulation of seismic waves in real media	Keen C.E. Geology Dalhousie 86	Crustal structure of two continent-ocean margins offshore eastern Canada
Hsieh W.W. Oceanography British Columbia 86	Numerical ocean modelling, remote sensing, sea-ice	Kehlenbeck M.M. Geology Lakehead 86	Structure and stratigraphy of Superior Province boundaries in the eastern Superior Province
Huberty C. Geologie Montreal 87	Tectonique et stratigraphie des terrains archeens de l'Abitibi entre Rouyn et Val d'Or, Quebec	Keller C.K. Microbiology Manitoba 85	Consumption of Fe by nitrate and sulfate reduction in acidification with: Yuda, J.W.K.
Huntley D.A. Oceanography Dalhousie 87	Nearshore processes and boundary layer dynamics	Kendall A.C. Geology Toronto 87	Stratigraphy and sedimentology of large carbonate-evaporite basins
Hutcheon I.E. Geology & Geophys. Calgary 86	Diagenetic model for clastic sequences	Kerrich R. Geological Sciences Saskatchewan 87	Global volatile budget and chemical redistribution in the crust

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Kingo, R.M. Geography Western Ontario 86	Mineralogy, geochemistry and variability of soil components
Kissin, S.A. Geology Lakehead 87	Studies on non-silicate minerals and their applications to problems in ore deposits and meteoritics
Knight, R.J. Geological Sciences British Columbia 87	Dielectric measurements of the distribution of water in multiphase saturated sandstones
Kobluk, D.R. Geology Toronto 84	Reef simulation model and Devonian cryptic biotas
Kostaschuk, R.A. Geography Guelph 87	Sedimentary processes in the presence of a salt-wedge: Fraser estuary
Koutitonsky, V.G. INRS - Oceanol. Inst natl de la rech sci 86	Circulation and mixing in the Jacques Cartier Passage
Kramer, J.R. Geology McMaster 86	Sorption of trace metals and anions on oxide substrates and organic matter
Krebes, E.S. Geology & Geophys. Calgary 87	Seismic waves in anelastic media
Krogh, T. Geology Ottawa 80	Petrology of gabbro dikes
Krogh, T.E. Geology Toronto 87	Research in geochronology: techniques, tests and applications to geological problems
Kromberg, R.G. Geology Lakehead 84	Soil and sediment geochemistry
Krouse, H.R. Physics Calgary 85	Stable isotope fractionation studies
Kukalova-Peck, J. Geology Carleton 75	Evolutionary morphology of Paleozoic insects with reference to recent insects
Kyser, T.K. Geological sciences Saskatchewan 87	Application of stable and radiogenic isotope compositions to geological problems
Lajoie, J. Geologie Montreal 84	Sedimentologie de dépôts siliciclastiques archéens, aphébiens, siluriens et récents
Lalonde, A.E. Geologie Ottawa 84	Petrogenesis and mineralogy of plutonic suites from Hepburn Orogen and the Slave Province
Lambert, R.St.J. Geology Alberta 87	Isotope studies of the western Cordillera and of the mantle
Last, W.M. Science Manitoba 84	Sedimentology and geochemistry of saline lakes
Laurent, R. Geologie Laval 85	Petrologie des ophiolites appalachiennes et de chypre
Lauriol, B.M.C. Geographie Ottawa 87	Geomorphologie karstique du massif calcaire de Rose Love - Yukon septentrional
Lavoie, C. Pedologie Laval 86	Atlas de l'érosion hydrique pour les sols agricoles du Québec soumis à différentes regies
Legele, J. Oceanographie Québec-Rimouski 85	Hydrogéochimie des estuaires
Leblond, P.H. Oceanography British Columbia 47	Ocean waves; coastal and arctic oceanography

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LeDrew, E.F. Geography Waterloo 85	Investigation of the role of surface characteristics in climate processes using remotely sensed imagery
Lenz, A.C. Geology Western Ontario 87	Paleontology, biostratigraphy, paleoecology of lower Paleozoic of northern and Arctic Canada
Lespérance, P.J. Géologie Montréal 41	Stratigraphie de l'Ordovicien Supérieur au Devonien Inférieur du Québec
Levinson, A.A. Geology & Geophys. Calgary 57	Exploration and environmental geochemistry
Lewis, J.J. Geography McGill 85	Surface energy exchange and land surface climatology in northern Baffin Bay
Lewkowicz, A.G. Geography Toronto 85	Measurement and simulation of permafrost degradation on slopes, Arctic Canada
Leybry, J.P. Geology Regina 87	Crustal evolution and tectonostratigraphic relations in the Trans-Hudson Orogen, Saskatchewan
Locat, J. Geologie Laval 87	Inter-relations entre la nature, les processus de formation des dépots argileux et leur comportement mecanique
Longa, B.F.M. INRS - Oceanolog. Inst natl de la rech sci 87	Evolution des estuaires de la Côte Nord du golfe Saint-Laurent
Longa, D.G.F. Geology Laurentian 87	Clastic sedimentology of the St. Lawrence platform
Longstaffe, F.J. Geology Western Ontario 85	Physico-chemical investigations of water-rock interaction in low-temperature environments
Lortie, G. Etudes nordiques Laval 87	Biostratigraphie et paleo-ecologie des diatomees des lacs acides nordiques et alpins
Loudon, T.V. Oceanography Dalhousie 47	Earth structure
Luckman, B.H. Geography Western Ontario 85	Little Ice Age in Jasper National Park and environs
Luddon, J.N. Geology Montreal 87	Applications of high-precision trace element analysis to geological problems
Ludvigsen, R. Geology Toronto 87	Lower paleozoic trilobite biostratigraphy
Luk, S.H. Geography Toronto 87	Investigations of soil erodibility, soil surface crusting and microtopography
MacDonald, G.M. Geography McMaster 87	Postglacial plant population dynamics in north-central Canada: II Treeline II Pop. History and genetic diversity
Mackay, J.R. Geography British Columbia 85	Origin of permafrost and ground ice, Western Arctic Coast, Canada
Mackie, S.A. Earth Sciences Memorial 85	Organic geochemistry of stable nitrogen isotopes
MacLean, B.M. Geological Sciences McGill 86	Field studies and phase equilibria studies on the genesis of massive and magmatic sulfide ores
Mahaney, W.C. Geography York 85	Quaternary history of Mount Kenya and the Virunga Mountains, Rwanda
Malo, M. INRS-Georess. Inst natl de la rech sci 87	Tectonique coulissante dans les Appalaches du Québec: mécanismes et rôle dans la déformation acadienne

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Malpas, J.G. Earth Sciences Memorial 87	Composition and structure of the oceanic lithosphere. Magma chamber processes
Mamet, B.L. Geologie Montreal 87	Microfacies carbonates du Paleozoique; microfaune et microflore
Manderlino, J.A. Geology Toronto 87	Crystal chemistry and detailed mineralogy of: 1) Tellurium and selenium oxysalts 2) Borates
Marcotte, J.E. Earth Sciences Quebec-Montreal 86	Thermal and mechanical evolution of the continental lithosphere
Marcotte, M. Genie mineral Ecole Polytechnique 87	1) Simulation numerique par couplage de plusieurs niveaux de problemes a 3-dim 2) MF en montagne
Martignole, J. Geologie Montreal 86	Recherches petrologiques et tectoniques dans la Province de Grenville
Martin, R.F. Geological Sciences McGill 85	Mineralogical and geochemical adjustments during rock-fluid interaction
Martini, I.P. Land Resource Sc Guelph 87	Quantitative studies of clastic sediments and rocks
Mathewes, R.W. Biology Sciences Simon Fraser 87	Late-Quaternary vegetation dynamics and climatic change in coastal British Columbia
Mathews, W.H. Geological Sciences British Columbia 87	Cenozoic geology and geochronology, British Columbia
Mayer, L.A. Oceanography Dalhousie 87	High resolution seismic stratigraphy and paleoceanography
McAndrews, J.H. Geology Toronto 87	Interdisciplinary Quaternary studies
McCaughey, J.H. Geography Queen's 85	Energy and radiation balance studies on mature and thinned forests and logged areas
McGowan, C. Zoology Toronto 84	Ontogeny, phylogeny, and functional morphology in selected vertebrates, recent and fossil
McNutt, R.H. Geology McMaster 85	Isotopic studies in high grade terranes: water-rock interaction and the Andes
Medioli, F.S. Ctre Marine Geol. Dalhousie 86	Recent and fossil foraminifera and arcellaceans in Eastern Canada & Canadian Arctic
Meyer, R.F. Geophysics Western Ontario 87	Deep and shallow seismic sounding research
Morrison, J.R. Geological Sciences Saskatchewan 87	Strain tides
Mialls, A.D. Geology Toronto 86	Basin analysis of fluvial sediments
Michel, F.A. Geology Carleton 85	Isotope investigations of northern groundwaters: permafrost and related phenomena
Middleton, G.V. Geology McMaster 86	Field and laboratory studies of clastic sediments
Miller, H.G. Earth Sciences Memorial 86	Geophysical investigations of Newfoundland geology - onshore and offshore
Mitchell, R.H. Geology Lakehead 86	Petrology and geochemistry of alnoites and alkaline rocks

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Moore, W.R. Earth Sciences Manitoba 86	Theoretical geophysics research
Moore, R.D. Geography McGill 85	Snowpack water routing and chemistry
Moore, P.B. Oceanography Dalhousie 84	Marine trace element geochemistry and Arctic oceanography
Morgan, A.V. Earth Sciences Waterloo 86	Quaternary insect assemblages: paleoecology, zoogeography, and climatic change
Morton, R.D. Geology Alberta 84	Mineralogical and geochemical studies on the Dawn Lake uranium deposit, Saskatchewan
Mossman, D.J. Geology Mount Allison 85	Geological processes involved in ore formation
Mountjoy, E.W. Geological Sciences McGill 84	Diagenesis of Paleozoic reefs and platforms; structural geology of Jasper-Valemount main ranges
Muecke, G.K. Geology Dalhousie 84	Evolution of the igneous rocks in the Canadian Arctic Islands and in the Mackenzie Zone, NS
Muehlenbachs, K. Geology Alberta 87	Stable isotope exchange studies and their application to geological problems
Mueller, K.W. Earth Sciences Quebec-Chicoutimi 87	Sedimentology, volcanology and geochemistry of the southern part of the Chibougamau area
Munro, D.S. Geography Toronto 87	A spatially distributed energy balance model for glacierized basins
Murphy, J.B. Geology St. F. Xavier 86	Late Precambrian - Lower Paleozoic evolution of the Antigonish Highlands, Nova Scotia
Murthy, G.S. Earth Sciences Memorial 85	Paleomagnetic and rock magnetic investigations of precambrian and paleozoic rocks from Labrador and from the island of Newfoundland and the study of implication of the result.
Mysak, L.A. Meteorology McGill 85	Dynamical oceanography and climatology
Nakiboglu, S.M. Surveying Eng Calgary 85	Global sea level changes and contemporary crustal motion in Canada
Naldrett, A.J. Geology Toronto 87	Field and experimental studies relating to exploration for and origin of PGE & Ni-Cu ores
Narbonne, G.M. Geological Sciences Queen's 85	Organism-sediment interactions in Lower Paleozoic carbonates of Canada
Nesbitt, R.W. Geology Alberta 87	Field, experimental and theoretical investigations of the genesis of Au-Ag mineralization in the Canadian Cordillera
Nesbitt, H.W. Geology Western Ontario 87	Thermodynamic evaluation and modelling of Illinois and Michigan basin formation waters
Nichols, I. Geological Sciences Queen's 86	Geochemical exploration for gold
Nicholls, J. Geology & Geophys. Calgary 84	Studies of magmatic processes
Nicklings, W.G. Geography Guelph 85	An evaluation of the surface and textural controls on the entrainment and transport of sediment by wind
Nisbet, E.G. Geological Sciences Saskatchewan 87	Studies in Archaean Geology

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Akeandirim, L.C. Geography Calgary 87	Chinook processes near the ground
Nabesa, J.C. Earth Sciences Waterloo 87	Physical properties and multiparameter geophysical interpretation
Nabier, J.P.A. Geology New Brunswick 86	Mid-Paleozoic faunal history and tectono-sedimentary evolution of basins in the northern Appalachians
Norrise, G. Geology Toronto 86	Palynostratigraphic studies on Mesozoic-Cenozoic miospores and dinoflagellates
Nowlan, G.S. Geology Ottawa 87	Silurian conodonts of eastern Canada
Nrlague, J. Earth Sciences Waterloo 86	Sulfur dynamics in acid sensitive watershed - a stable isotope study
Nylands, T. Physics Alberta 87	Investigation of seismicity and geology constraints for small scale geodynamics
Occhietti, S. Geographie Quebec-Montreal 86	Quaternaire continental et paleochronologies: Vallee et golfe du Saint-Laurent
Oke, T.R. Geography British Columbia 86	Heat and mass exchange in the urban atmosphere
Oldenburg, D.W. Geophys. & Astron. British Columbia 87	Inversion and inference of geophysical data
Orchard, M.J. Geological Sciences British Columbia 86	Conodont biostratigraphy, western Canada
Osborne, G.F. Geology & Geophys. Calgary 86	Holocene/late Pleistocene tephrostratigraphy and glacial chronology
Osborne, P.L. Geological Sciences Manitoba 87	Mineralogy mineral chemistry, and petrology of aluminosilicate bearing domains ad associated rocks Wilson Kennedy, L.P.
Ouellet, M. INRS - Eau Inst natl de la rech sci 86	Etablissement d'indices paleoecologiques de polluants atmospheriques
Pagé, P. Sciences de la terre Quebec-Montreal 87	Mobilites de gel dans les milieux glacio-aquatiques de l'est du Canada
Palmer, H.C. Geophysics Western Ontario 87	Paleomagnetism applied to tectonic problems
Pe-Piper, G. Geology Saint Mary's 86	Geologic applications of mafic volcanic rock petrology and geochemistry
Pearce, T.H. Geological Sciences Queen's 87	Laser applications in petrology
Pedersen, T.F. Oceanography British Columbia 86	Geochemical and paleoceanographic studies in marine and lacustrine aqueous and sedimentary environments
Pelletier, B. INRS - Oceanologie Inst natl de la rech sci 86	Etude des interactions du s limium et du mercure en milieu estuarien
Pemberton, S.G. Geology Alberta 87	Ichnology of storm, tidal, and marginal marine environments
Pennock, D.J. Geography Toronto 87	Influence of slope morphology on soil erosion and soil distribution
Petersen, P.C. Geology Queen's 86	Intracrystalline cation distribution in rock forming minerals
Picard, C. Geologie Montreal 87	Comportement des platinoides dans les roches magmatiques de la Fosse de l'Ungava
Pickerill, R.K. Geology New Brunswick 86	Ichnology, sedimentology and paleontology of selected Phanerozoic sequences of North America
Pigeo, D.J.W. Oceanography Dalhousie 86	Quaternary sedimentation on the continental margin off Eastern Canada
Platt, R.G. Geology Lakehead 87	Petrogenetic studies of alkaline magmas
Plint, A.G. Geology Western Ontario 87	Sea-level and tectonic controls on shelf sedimentation, Alberta basin
Pollard, W. Geography Memorial 87	Permafrost geomorphology and cryostratigraphic investigation of the Yukon coastle plain
Pond, G.S. Oceanography British Columbia 86	Inlet and coastal circulation, dynamics and mixing
Price, A.G. Geography Toronto 86	Energy balance, snowmelt, runoff and geochemistry in a forest
Prichonnet, G.P. Sciences de la terre Quebec-Montreal 86	Sedimentologie et paleoenvironnement des diamictites et/ou tillites du proterozoique du Quebec central (Abitibi-Moyen nord)
Quinlan, G.M. Earth Sciences Memorial 87	Tectonics, vertical motion and the stratigraphic record
Raeside, R.P. Geology Acadia 86	Stratigraphy, deformation and metamorphism, Cape Breton Highlands and Shelburne metamorphic complex, Nova Scotia
Ramseier, R.O. C.R.C.S.S. York 87	Microwave remote sensing of floating ice and ocean surface
Ranalli, G. Geology Carleton 87	Rheology and dynamics of lithosphere and mantle
Reardon, E.J. Earth Sciences Waterloo 87	Thermochemical modelling of rock/water interactions
Renaut, R.W. Geological Sciences Saskatchewan 87	Quaternary carbonate and evaporite sedimentation in the W. Cordillera
Reynolds, P.H. Physics/Geology Dalhousie 87	Argon and fission track geochronology and stable isotope studies
Risk, M.J. Geology McMaster 87	Bivalves as environmental monitors/stable isotopes as tracers of food webs
Rivas, J. Geology Laval 87	Study of early-middle and late Ordovician graptolite
Rivers, C.F.S. Earth Sciences Memorial 85	Metamorphic and structural studies in Precambrian and Phanerozoic orogens, with particular emphasis on the Grenville Province
Roble, R.V.F. Geology Toronto 87	Deformation of minerals and rocks under natural conditions: Measurements, physical chemistry
Robinson, P.T. Ctre Marine Geol. Dalhousie 87	Petrology, structure and origin of the ocean crust
Rocheleau, M. Geologie Laval 86	Sédimentologie, paléogéographie et metallogenie de l'or dans la ceinture d'Abitibi
Rochester, M.G. Earth Sciences Memorial 85	Theoretical global geophysics and planetary physics

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Rodriguez, C.G. Geology Windsor 85	Paleoecologic and stratigraphic significance of foraminiferida, ostracoda, and invertebrate macrofossils in the Champlain Sea basin
Roeder, P.L. Geological Sciences Queen's 49	Experimental and microprobe study of basic igneous rocks
Rogerson, R.J. Earth Sciences Memorial 46	Glaciers in Northern Labrador
Ross, J.V. Geological Sciences British Columbia 86	Structure and mechanical properties of common rocks; structural studies in central British Columbia
Rouse, W.I. Geography York 46	Groundwater and soil moisture studies in mid-latitude wetlands
Rouse, G.E. Botany British Columbia 85	Tertiary palynostratigraphy in western Canada
Rouse, W.R. Geography McMaster 87	Impact of Hudson and James bays on climate, permafrost and plant growth
Roy, A.G. Geographie Montreal 85	Flow and sedimentary processes at river junctions
Royer, A. Geographie et CARTEL Sherbrooke 87	Etude de l'atmosphere par teledetection satellite. Application aux etudes climatologiques (pollution) et environnementales
Ruckledge, J.C. Geology Toronto 86	Geological studies using ultra-sensitive analysis
Ruddick, K.R. Oceanography Dalhousie 85	Spindown, dissipation, and mixing of a mediterranean salt lens
Russell, J.K. Geological Sciences British Columbia 87	Transport and eruption of basalt magmas
Russell, R.D. Geophys. & Astron. British Columbia 87	1) Geophysical instrumentation 2) Isotopic studies
Rust, B.R. Geology Ottawa 85	Studies of alluvial and related clastic sedimentation
Rutherford, G.K. Geography Queen's 85	Pedogenesis of soils on basic igneous rocks
Rutter, N.W. Geology Alberta 87	Quaternary history and amino acid dating techniques
Sangster, D.M. Geology Windsor 87	The genesis of metal and hydrocarbon deposits: evidence from fluid inclusions, stable isotopic and alteration studies
Sanderson, R.G. Physics Memorial 87	Eddy-diffusion and coastal circulation
Sarjeant, W.A.S. Geological Sciences Saskatchewan 85	Fossil dinoflagellate cysts and acritarchs: morphology, evolutionary relationships and application in palaeoecology and biostratigraphy
Sauchyn, D.J. Geography Regina 86	Late Quaternary landscape evolution: Cypress Hills
Savigny, K.W. Geological Engr. British Columbia 87	The continuous creep process and its influence on mass movement
Sawyer, E.W. Earth Sciences Quebec-Chicoutimi 87	Melt segregation in migmatites
Scarfe, C.M. Geology Alberta 87	Physics and chemistry of silicate melts and magmas

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Scharer, U. Earth Sciences Quebec-Montreal 87	Crustal evolution from isotope systematics in minerals
Schloessin, H.H. Geophysics Western Ontario 87	1) Physical properties of matter under conditions of planetary interiors 2) Infrastructure support of high pressure experimental facility
Schreier, H. Soil Science British Columbia 85	Using remote sensing techniques to quantify soil degradation processes
Schrijver, J. Inst-Geoscres. Inst natl de la rech sci 87	Metallogenie de la sequence sedimentaire des Appalaches septentrionales du Quebec
Schuepp, P.H. Nat. Resources McGill 87	Micrometeorological model experiment.
Schwarcz, H.P. Geology McMaster 56	Isotopic geochemistry
Schwartz, F.W. Geology Alberta 45	Exchange processes and mass transport in groundwater systems
Schweger, C.E. Anthropology Alberta 37	Pleistocene paleoecology/stratigraphy of Alaska-Yukon tephras and paleoecology of central Alberta
Schwerdtner, W.M. Geology Toronto 35	Strain patterns of large structures in the Canadian shield
Scott, D.B. Ctre Marine Geol. Dalhousie 46	Microfossil studies in Eastern Canada-applications to paleoceanography and biostratigraphy
Scott, S.D. Geology Toronto 46	Geology and geochemistry of modern and ancient massive sulfide deposits
Seguin, M.K. Geologie Laval 35	Paleomagnetism and permafrost geophysics
Shaw, D.M. Geology McMaster 35	Geochemical studies of minerals and rocks
Shaw, J. Geography Queen's 87	Processes of formation of glacial landforms and sediment
Shoemaker, E.M. Math/Statistics Simon Fraser 47	Subglacial physics
Silverberg, N. Oceanography Quebec-Rimouski 47	Sediment accumulation phenomena in the St. Lawrence Estuary
Simony, P.S. Geology Calgary 46	Tectonic studies in Southern Cordillera
Sinclair, A.J. Geological Sciences British Columbia 85	Anomaly recognition in multivariate data for more efficient mineral exploration
Singh, B. Geography Montreal 87	Estimation and modelling of evapotranspiration on a regional scale using remote sensing
Skippen, G.B. Geology Carleton 47	The influence of saline fluids on metamorphism
Sklash, M.G. Geology Windsor 87	Applied isotope hydrogeology
Slaymaker, H.O. Geography British Columbia 35	Runoff, solute and sediment production and transport in mountain basins
Smart, C. Geography Carleton 36	Karst hydrology and the hydrology of glacier beds

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Smith, D.I. Geography Calgary 86	Lithofacies models for medium and low energy fluvial and micro and meso tidal-influenced meandering river systems in W.Canada and Ecuador
Smith, D.I.W. Geology Alberta 87	Applications of the electron microprobe in mineralogy, petrology and meteoritics
Smith, D.J. Geography Saskatchewan 87	Downslope soil movement in the Canadian Rocky Mountains
Smith, J.L. Geological Sciences British Columbia 85	Mass and heat transfer in porous and fractured media
Smith, P.L. Geological Sciences British Columbia 86	The lower Jurassic of western North America
Smith, T.E. Geology Windsor 86	The geochemistry and petrogenesis of the volcanic rocks in the Grenville Supergroup
Smylie, D.E. Earth & Atmos. Sc. York 86	Earth dynamics
Spanos, T.J.T. Physics Alberta 87	Dynamics of permeable media
Spencer, J.J. Zoology & Geophys. Calgary 87	Geochemical evolution of the Western Canada sedimentry basin
Spooner, E.T.C. Geology Toronto 87	Hydrothermal ore deposits, fluid/rock interaction and archean processes; characteristics, analytical geochemistry and modelling
Sprowl, D.R. Geology New Brunswick 86	Metamorphic processes in basic and ultrabasic rocks and in shear zones
Starkey, J. Geology Western Ontario 87	The development of X-ray petrofabric and image analysing methods and their application to the analysis of deformed conglomerates and shear zones
Stauffer, M.R. Geological Sciences Saskatchewan 85	3D Structures in rocks 2D exploration seismology in Precambrian shield
Stearn, C.W. Geological Sciences McGill 85	Paleoecology of reefs
Stesky, R.M. Earth/Planet. Sci. Toronto 86	Geophysical and mechanical properties of rocks.
Stevens, R.K. Earth Sciences Memorial 85	Evolution of early Paleozoic oceans and continental margins
Stockey, R.A. Botany Alberta 85	Cretaceous and tertiary plants from western Canada
Stranaghan, G.D. Geology British Columbia 86	Magnetic and electrical studies of geological significance
Strong, D.F. Earth Sciences Memorial 87	Geochemical, petrological and tectonic studies of factors controlling metallogenic processes
St. Seymour, K. Geology Concordia 86	Chemostratigraphy of greenstone belts, Slave Province, NWT, Canada
Suseke, M.J. Geology New Brunswick 87	Chemistry of hydrothermal solutions
Symons, D.T.A. Geology Windsor 85	Paleomagnetic studies: Cordilleran geotectonics and ore genesis
Tassé, N. INRS-Georess. Inst natl de la rech sci 85	Sédimentation et diagenèse en relation avec les minéralisations dans les Basses-terres du Saint-Laurent

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Taylor, C.N. Geography Trent 87	Hydrological processes and stream chemistry in shield watersheds with: Cornett, A.J.
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